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PERSONNEL Journal



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Jobs and Psychology

IN THIS ISSUE of the PERSONNEL JOURNAL much more space than usual is given over to discussions of psychology in connection with jobs. These are contained in articles by Mr. Hay, Mr. Dulsky and Mr. Wilking.

We feel justified in including so much psychological material, because the difficulties now being experienced by industries in securing competent personnel at all levels of skill, is causing them to turn to psychology, as a possible aid in solving this problem.

Mr. Hay has spent seven years gradually developing tests for use in his company, and in making sure that they are used only when, how and where appropriate in the selection, proper placement, promotion and transfer of employees.

To these four functions, which every personnel department has, may be added what is termed "vocational counseling." Perhaps we should not say 'added', because in many ways these four functions cannot be done without counseling.

By counseling is meant interviewing employees about their jobs; finding out where best to place applicants for jobs in the company; talking to those who do not make good, or who fall down, to see where they may best be transferred to; advising those who come in seeking to know about their chances of promotion, and how they can best qualify themselves for it; etc.

Mr. Dulsky has had much experience in counseling, or advising both students and adults, who have come for aid in deciding what occupation they should take up. His discussions deal with this aspect of personnel work.

The first part of his paper is somewhat critical of tests, particularly those of special abilities and personality, and may seem to conflict with Mr. Hay's somewhat enthusiastic advocacy of their use. This part is rather technical.

The second part of his paper is not technically written. It should prove most valuable, particularly to personnel men concerned with the hiring, placement and promotion of college graduates.

Mr. Wilking has had much experience in improving the reading ability of executives and college students. He points out that executives (at all levels) make their decisions, and receive and give out instructions on the basis of and through the printed or written page. Reading ability is therefore an essential qualification for everyone from the foreman to the president.

Personnel men might find an encouraging response if they included in their educational and training programs courses in Reading, worked out with the nearest university.

The Editor.

Since Intelligence is Necessary for the Solution of
Difficult Problems Only Intelligent Employees
Should be Made Supervisors, and Only the More
Intelligent Supervisors Should be Promoted to
Still Higher Levels.

Tests *in* Industry I Their Proper Use

BY EDWARD N. HAY

The Pennsylvania Company,
Philadelphia, Pa.

INDUSTRY is now again becoming aware of the value of psychological methods, especially in the testing of applicants for employment. Following the First World War there was a development of interest, but the lack of skilled psychologists, and the disappointments of companies that expected too much in too short a time brought about a revulsion of feeling. So psychological testing almost disappeared from American Industry. This interest is now being revived, and there will no doubt be the same experience as before; some companies will succeed and many will fail.

Obtaining Intelligent Foremen

ASIDE from the advantages and economies in selection of new employees, intelligence tests will in the future become more widely relied upon for promotion. Since intelligence is necessary for the solution of difficult problems, it will eventually be recognized that only intelligent employees should be made foremen, and only the more intelligent foremen should be promoted to still higher levels. This condition often does not prevail because aggressiveness and good personality are the qualities most easily seen, and the employee having them is the one most likely to be promoted. Oft times, however, they are possessed by men of mediocre intelligence, and such a combination is always a troublesome one, especially when applied to complex problems.

When a crisis arises in industry, such as has been brought about by world conditions at the present time, requiring the rapid mobilization of industries for increased

production, there is always a considerable amount of churning around of people from one job to another, much of it based on unfitness for the job being done.

Psychological tests will enable the employer to pick new people for quick training with more assurance than without their aid. By selecting persons of suitable aptitude the training period will be decreased, and performance on the job will be improved. Misfits will be eliminated, or directed into their proper channels.

Less Intelligent Not Excluded

SOME employers worry about the use of intelligence tests in employment fearing that they will tend to exclude from industry those of medium and low intelligence. This is not the case at all, because every industrial company needs intelligences of all levels. The important problem is to select a person of appropriate intelligence for the job in hand. This means that employees of high intelligence should not be kept for long periods on highly routine jobs and likewise that persons of medium or low intelligence should not be promoted or trained for difficult and complex jobs, especially those involving the supervision of others.

Some Companies Using Tests

A NUMBER of progressive companies have had psychologists on their staffs for many years. The Procter & Gamble Company was one of the first to experiment in this new field, and in the course of twenty years has reaped substantial rewards in the form of cost reduction and increased efficiency in hiring and training of shop, office and sales workers. Its staff includes several psychologists of the first rank and numerous younger trained people.

Another pioneer in applying psychological techniques to industrial problems is the Scovill Manufacturing Company of Waterbury, Connecticut. Others include the Western Electric Company, Southern California Gas Company, Household Finance Company, Philadelphia Electric Company, Milwaukee Electric Railway and Light Company, The Atlantic Refining Company, Eastman Kodak Company, Detroit Edison Company, Carnegie-Illinois Steel Corp., and our own organization, The Pennsylvania Company.

Because of space limitations this discussion of psychological applications in industry must be confined to problems relating to the selection of new workers and to their promotion and transfer. In so small a space these can best be discussed from the standpoint of our own experience. The general principles involved and the techniques used are those available to any industrial or commercial organization.

Ours is a large clerical staff of more than a thousand workers and differs from other organizations, therefore, only in the detailed nature of the duties performed. While these duties are primarily related to the keeping of records there are, at the same time, many manual skills involved.

Selection, Promotion and Transfer

SELECTION in the banking business, as in all office work, requires the employment of the following types of persons:

- A. Typists and stenographers.
- B. General clerks.
- C. Messengers, both boys and girls.
- D. Armed guards, porters, cleaners and watchmen.
- E. Older employees of special experience, as needed.

Promotions relate principally to the following classes:

- A. From clerk to specialist or technical clerk.
- B. From clerk to junior supervisor.
- C. From one grade of junior supervision to another.
- D. From intermediate to high supervisory positions.

Transfer or Discharge relates chiefly to employees who are unsatisfactory in their present work or whose duties have been abolished or changed.

Any discussion of the types of problems met with in selection, promotion or transfer involves a recognition of the qualities needed in new and promoted employees. There are the usual requirements such as acceptability of appearance, and manner with reference to the group in which the new employee is to work, minimum education, good work habits and so on. Most industrial employment takes account only of these factors, plus experience, where that is essential, and does not have the additional information given by tests.

Most Jobs Simple to Start

BANKING, except in its credit and investment aspects which require less than 5% of the entire personnel of a large bank, is not a complex business as compared with the kinds of problems met with in most industrial organizations. The type of clerical work performed by the newest employee is extremely simple, requiring only a few days to a few weeks for mastery by a reasonably intelligent person of high school education. Perhaps the most rigid requirement for a new employee in bank work is honesty. Of course, in specialized and supervisory positions the work assumes considerable complexity.

In our company as in most others, promotion to the higher supervisory positions is an executive prerogative. Senior executives feel with a good deal of justice that they are in the best position to judge who is most qualified to fill the jobs at the top. For promotions at the lower levels, especially when these promotions are made by executives of intermediate rank, it is not so difficult to secure acceptance of advice from the personnel department, especially where that advice has in the past proven itself sound, because of information provided by psychological tests.

Original Employment Determines Promotion Problems

PROMOTION problems really originate at the time when the employee is first put on the payroll, since promotions to supervisory positions are made almost entirely from among employees already on the payroll. Original employment, therefore, has a double importance; first, in respect of the job to which the new employee is to be assigned upon being hired and second, in regard to the positions to which he may be promoted later. Taking proper account of the second of these problems requires more foresight and information than most of us possess, especially since we cannot anticipate exactly what positions any one person might be promoted to.

It is clear, however, that original employment must anticipate a lifetime of service with the company, and every possibility that lies ahead must in some degree be given consideration. Psychological test information, with respect to promotion, must be adequate and used properly. There must be sufficient criteria for the higher jobs, standardized with reference to test scores, so as to enable us to predict probable future success of an employee, who is to be promoted.

Experience of Scovill Manufacturing and Aetna Life

STUDIES of Pond and Bills establish the importance of intelligence as a factor in success in higher jobs. These studies show that the higher intelligence a person has the greater are his chances of promotion. (Pond, Millicent and Bills, Marion A., "Intelligence and Clerical Jobs," *Personnel Journal*, Vol. XII, pp. 41-56.)

It does not follow from this that every person of high intelligence is promotable to the top positions or, on the contrary, that persons of moderate intelligence are not capable of success in jobs of considerable responsibility. There is always the question as to the use a man will make of his talents. On the average however the importance of intelligence in the higher jobs cannot be doubted.

An illustration of the importance of good intelligence test scores for clerical work is provided by studies of Wadsworth and Pond. Each working independently, established that the greatest incidence of so called "problem" employee is found among those having less than 105 I.Q. (Otis). As a result of this study each has established minimum entrance requirements at this level. It is not that simple clerical jobs require this much intelligence; indeed they can be done by persons of rather low intelligence in many cases.

The trouble arises when an employee of moderate intelligence is promoted successively until finally reaching a level of job complexity, where problems occur which he lacks the mental ability to solve readily. By screening out every one who scores below the critical point named, most of the future problem employees are thus automatically excluded.

Industrial psychologists make no pretense that tests obviate the necessity of

Careful analysis of the applicant from the standpoint of appearance, manner, temperament, education, experience and so on. Additional information of vital importance, however, is available through tests which cannot be had in any other way than by a long period of trial on the job.

Problems of transfer of employees usually have to do with square pegs in round holes. Information derived from test scores, used with sufficient knowledge and experience, often make it possible to discover the difficulty quickly, and not infrequently lead to a transfer of the employee to a job in which he will be effective.

An Unsuccessful Transfer

WHEN it became necessary in our company to have an extra man in the office working with collection problems, it was decided to promote one of the street collectors. The man selected, Mr. Johnson, had been one of the longest in service, and was one of the most successful. He was personally attractive and had previously had inside office experience with another company.

After a few months Johnson's supervisor became discouraged with him. He reported that Johnson "did not catch on," that he was "slow to get a new idea." He explained that Johnson would ask him the same question time and time again. He would seem to understand the explanation, but the next day he would come back and ask the same question again. At other times he would seem to follow the explanation, and then would ask a question that revealed a lack of understanding. All these comments suggested a person of limited intelligence. Finally, after six months of struggle the supervisor decided that Johnson would have to be dropped, and asked the personnel office what could be done.

Testing was suggested. Tests revealed an Otis I.Q. of 85, confirming what had been learned about Johnson on the job. It was decided to try to persuade him to go back to street collection work, with the knowledge that he could succeed there if he wished. This would be better for him than being "fired." This demotion was satisfactorily accomplished by a tactful supervisor, and Johnson has been successfully on the street for the past two years.

This illustrates a condition which is not uncommon and which the industrial psychologist can frequently prevent; namely failure occasioned by promoting a man with insufficient intelligence to cope with the problems of a new job. This can happen because in the first position the problems may be simple and not at all beyond the employee's ability to solve. If his personality is pleasant and he has been successful in the job it is customary for executives to assume that he can do equally well in another job. Failures of this kind are not uncommon, and many examples of the same sort could be furnished.

Sometimes in situations like this the failure to cope with the problems of the new position causes behavior peculiarities, that seem to have no relation to the actual work of the job, but are probably occasioned by the sense of failure and frustration.

Former Solution of Personnel Problems

UNTIL 1934 there was no centralized personnel work in the Pennsylvania Company. Each department head did his own hiring, although some of the smaller departments were furnished clerks by promoting messenger boys originally employed by the purchasing agent. Men clerks came either from this source, or from persons who had had previous banking or other clerical experience. In such cases they were employed primarily on the assumption that their experience qualified them adequately.

A good many applicants were taken at the behest of an official or a customer of the company. As in most banks job tenure was seldom disturbed, and employees who were not particularly satisfactory were nevertheless often retained on the payroll. Many of these employees proved unsuited for clerical work.

With the inauguration of a personnel department centralized employment became the rule, and as the personnel department developed it was able to render valuable service to the operating departments in effecting transfers and promotions.

Special Qualification of Industrial Psychologists

BROADLY, the value of the psychologist in employment work is that pertaining generally to the scientific approach to the solution of business problems. This implies measurement rather than guesswork and the substitution of facts for estimates. In dealing with the complexities of the human being there are, however, obvious limitations in applying scientific methods. But these do not nullify the value that lies in the scientific approach.

The broad principles underlying psychological measurement as applied to industrial employment are very simple. First, the job is examined, and a list is made of the qualities needed, such as finger dexterity, strength, ability to withstand heat, knowledge of arithmetic or whatever may be called for. Next, a large body of workers on the same job is studied and their performance is measured. From production records it is possible to identify the skillful workers from the poor ones. Next, on the basis of the abilities required on the job, a series of tests is devised or adapted from other situations, and administered to all workers. Production records of workers are then compared mathematically with test scores so as to show the relationship.

Tests and Production

SOMETIMES it is found that one or more of the tests, or several in combination, bear a fairly close relationship to production records of the same employees. From this we may then say that knowing the test scores of the individual it is possible to predict, within certain acceptable limits of accuracy, the probable production of that employee when he has been trained to the job. Of course, the closer the relation-

ship between test scores and production records the higher the probability that the prediction will be fulfilled.

For example, if tests enabled us to pick successful workers nine times out of ten, and to reject only one out of ten who might have been successful, in spite of the low test score, then we can at least say that our results are very much better than usual. The usual interview employment methods rarely will do as good a job of selection as with the help of tests, where satisfactory relationship between production and test score have been obtained.

Use by Public Employment Offices

PUBLIC employment offices, that have adopted the testing procedures of the Worker Analysis Section, Employment Bureau of the Social Security Board, have considerably increased placements with employers after the test program has been established. This, of course, is because the public employment office is able to make successful recommendations more frequently with tests than without them, and employers soon learn this.

The work of analyzing each job for the qualities required in its performance, the identification and collection of satisfactory criteria of successful performance on the job, the selection or construction of tests which will measure the qualities required for a given job, the administration of these tests, their mathematical comparison with the job criteria, and finally the construction of formulae for using this information in predicting job success are the functions of the industrial psychologist with reference to employment.

Other Possible Uses of Psychology

THERE are many other applications in industry for psychological techniques besides in employment and promotion. One of the most promising fields, but one as yet little exploited, is that of employee training.

A few companies have had notable success in effective training methods devised with the help of the industrial psychologist and it is probable that this will be a fruitful field in the years to come. The laws of learning are well known to psychologists and if heeded will enable employers to improve their training programs.

The conduct of employer-employee relationships will be improved by full attention to the psychological factors underlying human relations. This is a neglected field.

Supervision of the work of others calls for qualities beyond those needed for performance of the work itself. One of industry's most difficult problems in recent years has been the supervisor-employee relationship. Here is a splendid opportunity for the industrial psychologist. In every department of life a better understanding of people is improving conditions. This must inevitably be the case in industry too.

The field for the psychologist in industry is clear. May he be equal to his opportunity.

II Practical Illustration

IN GENERAL there are two ways of measuring the effectiveness of psychological methods in employment in a particular company. One of these may be found in the opinions of executives for whom the personnel department has been employing. If they are satisfied with the results over a period of several years it is a reasonable conclusion that the methods have been successful. In our company this satisfaction is marked.

Personnel Makes Initial Selection

WITH us, as in other correctly organized companies, it is the duty of the personnel department to make the initial selection from among eligible applicants. Those who meet the requirements set up by the personnel department are then sent to the department where the vacancy occurs, and a choice is made by the supervisor for whom the new employee is to work. We hold strictly to this policy, but seldom do we find at any one time, several candidates whom we regard as of equal desirability, and therefore we have been following the practice of submitting first the candidate we believe most likely to be successful. After more than six years, we find today that rarely does a department ask to see another candidate.

Guy W. Wadsworth, Jr. writing in PERSONNEL JOURNAL 1935 reported the following figures comparing test and non-test employees. (Guy W. Wadsworth, Jr., "Tests Prove Worth to a Utility," *Personnel Journal*, Vol. XIV, pg. 183, Nov. 1935.)

COMPARISON OF TEST AND NON-TEST EMPLOYEES

	TEST	NON-TEST
Satisfactory Employees	61½%	49%
Outstanding Employees	33%	22%
Problem Employees.....	5.5%	29%

In the foregoing figures were 594 cases of non-test employees and 108 cases of test employees. The characterization of Outstanding, Satisfactory or Problem, resulted from appraisals by supervisors on a three point scale.

Developing Tests for a Job

ANOTHER way of testing the effectiveness of employees hired by means of tests as compared with those hired without that information is afforded where a production record is available. In our company one such position affords comparison on the basis of actual production records. This is the position of machine bookkeeper.

Identifying the relationship between test scores and production or error records of machine bookkeepers proved to be a difficult, and somewhat inexact process, requiring considerable experience and knowledge of test measurement. The first problem to be solved was the determination of a satisfactory criterion, or index of performance.

TESTS IN INDUSTRY

In Table I (below) the operators names are listed according to individual rates of production, and in our experience this has been found to be a satisfactory criterion of success. This figure is derived from the number of debits and credits posted per hour during a period of four days in October 1939. Some investigators have at-

TABLE I

A LIST OF 40 OPERATORS WHO WERE AT WORK IN OCTOBER 1939, SHOWING PRODUCTION RECORD, ERRORS, AND TEST SCORES

	PRODUCTION		I.Q.	NUMBER-CHECKING			NAME-CHECKING		
	Rate	Errors		Right	Errors	Rt. — Wrong	Right	Errors	Rt. — Wrong
1. Don	130	4	97	163	1	162	148	1	145
2. Hill	127	3	88	159	2	157	139	3	136
3. O'Neill	124	6	102	159	12	147	104	10	148
4. Fitzgerald	124	5	94	165	2	163	100	17	143
5. Lusk	120	2	111	196	4	192	153	7	186
6. Swing	120	5	98	152	0	152	144	3	141
7. Hope	120	18	87	153	0	147	139	1	138
8. Moss	114	10	107	169	2	167	139	5	134
9. Allen	114	2	113	189	2	187	183	8	175
10. Benny	114	11	97	171	3	168	174	12	162
11. Baldwin	112	7	102	153	3	150	101	10	115
12. Churchill	112	6	100	156	4	152	148	2	146
13. Young	111	9	97	184	2	182	171	8	163
14. O'Connor	111	9	84	137	4	126	135	3	133
15. McCarthy	110	3	90	178	2	176	167	10	157
16. Bergen	110	7	113	175	7	168	185	13	172
17. Stafford	110	6	83	142	0	136	140	1	139
18. Eden	110	12	97	177	0	171	134	3	129
19. Waring	110	3	97	133	2	133	162	14	148
20. Hoyt	109	4	102	198	2	196	193	7	186
21. Baines	109	4	107	136	3	133	133	4	129
22. Duggan	108	4	107	94	0	94	100	3	100
23. Keen	108	6	83	118	2	116	112	1	111
24. Hale	108	3	94	152	4	148	107	4	103
25. Ross	108	1	97	133	2	131	104	2	102
26. Frost	107	11	87	110	5	110	87	3	74
27. Jordan	107	0	88	184	9	175	100	14	136
28. Smith	106	3	98	130	0	130	145	10	133
29. Marlin	105	15	100	106	6	100	164	12	152
30. Savo	103	27	83	107	0	107	109	19	111
31. Borden	103	2	97	135	3	132	143	2	141
32. Miller	103	8	107	102	3	103	159	9	150
33. Edge	102	9	83	171	7	164	136	44	92
34. Adams	100	1	100	105	3	102	139	3	134
35. Jamison	99	5	97	120	3	117	100	32	128
36. Duval	99	0	82	120	1	120	148	2	146
37. Cavall	98	3	81	108	1	107	107	3	100
38. Long	97	0	80	133	1	132	130	3	127
39. Duffy	94	1	82	101	39	100	122	38	64
40. Lincoln	83	0	87	152	4	148	118	7	111

tempted to use the error score as a criterion, reasoning that in an operation of this kind accuracy is the first requirement, inaccurate work being of no value. However, we do not use the error score for machine bookkeeper as a criterion, because no appreciable relationship to test scores can be found.

An examination of the error score in Table I shows no consistent relationship to production. An attempt to correlate errors with test scores likewise showed no appreciable relationship. Among operators who are able to do work of satisfactory accuracy, it may be said that the best operator is the one who can do the most work in a given time. Based on this reasoning we have adopted rate of production as a criterion.

Differences in Ability

THE next problem is to find a test or tests on which the better operators score high, and the poorer ones score low. This is a long and tedious operation. Among the factors influencing the result are the number of operators doing identical work whose records furnish a basis of comparison. Our bookkeeping division has forty operators, and while this was a smaller number than desirable it was large enough to make the effort worthwhile.

Another consideration was the range of ability within the group. If there is not considerable range from the lowest to the highest, or in other words if the production scores are grouped closely together, it forms too narrow a base for comparison with the test scores. It is well known that the range of ability of one hundred persons on any given skill is very much greater among a group selected at random, from the general population, than it is for a similar number engaged in the occupation requiring that skill.

One hundred experienced sprinters can run a hundred yards in a time varying between about 9.3 seconds and 10.2 seconds, whereas one hundred persons selected at random, but including some sprinters, might be expected to vary between 9.4 seconds and 18.0 seconds. It is readily apparent that in the latter group it will be much easier to identify characteristics that have to do with success in sprinting, than it will be in the former group to identify the best sprinters from the poorest by some measurable characteristic other than his time in running. It is usually not worthwhile to work with a group in which the range of performance is small.

An examination of the production record of the bookkeepers in Table I shows, however, considerable range, the best operator having a production rate over 50% greater than that of the poorest, with the other operators spaced at close intervals between these two extremes. We therefore concluded that our group afforded a sufficient range of performance.

Selecting Tests to Be Tried

THE next step was to select a number of tests that might show some relation to performance on the job. From among hundreds of tests the following seemed to offer some promise:

Intelligence Test.—It seemed obvious that intelligence played some part in this

TESTS IN INDUSTRY

operation. We have been using intelligence tests for several years on general clerical employment with much success.

Name checking, Number checking.—These tests were well known, and are considered by some to be indexes of clerical aptitude. The number test consists of a series of pairs of numbers, the problem being to compare them and see whether they were exactly alike or slightly different. If alike, a check mark is placed between the pair of numbers. The name checking test is the same idea applied to comparison of names.

Aural Number memory.—This consisted of reading numbers to the subject, who is asked to repeat them back. It begins with four digit numbers, then five, six etc. This test was soon discarded.

Healy Tapping Test.—A sheet of paper is printed with squares and the subject is asked to place a pencil dot in each square. The score is the number of squares that can be filled in the given time. This test was found to have little or no relationship to production.

TABLE II
CORRELATION BETWEEN TESTS AND PRODUCTION RECORDS

NAME OF TEST	NUMBER OF EMPLOYEES	CORRELATION	PROBABLE ERROR
Intelligence (Otis S-A, Form B)	41	.350	.094
Minnesota, Number Checking	41	.390	.09
Minnesota, Name Checking. . .	41	.454	.085
Healy Tapping	34	-.163	.115
Taylor Number	34	.372	.1
Turner Coordination.	34	.339	.1
Months of Experience	41	.144	.104

Taylor Number Test.—On a sheet of paper of letter size fifty numbers are printed, from one to fifty. They are scattered in random arrangement and tilted at various angles. The problem is to connect as many numbers beginning with 1, 2, 3, etc. with the pencil as possible in a limited time. This was found to have some relationship to production, apparently because the act of seeking and perceiving numbers is a requirement of the job.

Turner Coordination Test.—This is a test especially devised by Dr. William D. Turner, who was consulting with us on this problem. It was devised on Gestalt principals in an attempt to embody in the test a sample of all the qualities required in the operation. Among those believed necessary were two-handedness, number recognition, etc. This test showed a low relationship to the criterion and was discarded.

After these tests were administered to all operators a statistical comparison was made between production, and scores on tests, with the results shown in Table II (above).

The first three of these tests were significantly related to the production records

of operators as will be strikingly appreciated from an examination of Table III (below).

These figures illustrate very clearly the distinctions made by high and low intelligence test scores and high and low name checking scores. For the past three years we have been employing bookkeepers with the help of these tests, requiring a minimum intelligence quotient of 95 and minimum name and number checking scores of 130.

During that period of nearly three years the average rate of production of bookkeepers has increased from 104.8 to 109.0 or about 4.2%. The same number of bookkeepers has been able to handle an increased volume of work.

Economic and Social Results

COMPANIES like our own that have been using tests for a period of years find a substantial increase in employee performance which justifies the expense of the test program. The foregoing example illustrates the process and indicates the re-

TABLE III
COMPARISON OF 2 BEST OPERATORS WITH 2 POOREST

	BEST 2	POOREST 2
Average Production	116	113
Errors, per 100 units production	1.14	1.14
I Q below 88	5 of 2	9 of 20
Name checking test, net score under 130	1 of 2	12 of 20
Number checking test, net score under 130	1 of 20	8 of 20

sulting saving. Besides the advantage of better selection of new employees tests help to exclude "misfit" employees. In our case this is shown by an extremely low labor turnover. Most of the few failures that have occurred are apparently not due to lack of aptitude for the work, but are caused by ill health, personal problems and the like.

Since tests help to select people having greater aptitude for the job for which hired, they also economize in training by shortening the period and cutting down on the number of failures. The social benefits of testing applicants for employment, and for promotion, are almost equally evident through the reduction in the number of misfits. Nearly every misfit becomes an emotional problem sooner or later. It is obvious that none of us can be happy in a job for which we are not suited and in which we are not doing well. By eliminating these misfits a great social contribution is made.

Fit Intelligence to Job

EVERYWHERE, we see the result of job maladjustment. A common industrial problem is the situation created by the supervisor who is emotionally unbalanced, or who may lack sufficient intelligence to cope with the problems of his job. An illustration of this type has been given, and the studies of Bills and Pond on the importance of intelligence as a factor in promotability has been referred to. Many emotional disturbances among employees are the result of inability to cope with the problems of the job and usually this is a sign of insufficient intelligence.

The waste through leaving persons of high intelligence for long periods on jobs where that intelligence is not needed is another common error. In our work we are selecting clerks of higher intelligence not only from among experienced clerks but also among beginners. We find we can do this without difficulty as the supply is ample. The good results are evident in the successful promotions of many of these newer employees.

Sitting Outside the Office of the Personnel Director of an Oil Company in Texas We Heard Two Boys Discussing Why They Wanted a Job in that Company. It Appeared that They Thought that in It They Would Progress Fast and be Able to Marry Young.

Vocational Counseling I By Use of Tests

BY STANLEY G. DULSKY

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THERE has been a growing tendency for psychologists to depend more and more upon the results of objective tests. This tendency has grown concurrently with the appearance of an ever increasing number of published tests, blanks, and inventories. Although the greater use of tests is not, in itself, to be discouraged, the growing tendency of some psychologists to substitute a larger number of tests for serious and critical thinking is a practice the writer deplors.

A Man Is Not a Lot of Bits

PARTICULARLY in the field of vocational counseling, many psychologists, to conceal their ignorance and their lack of insight into human behavior, have added test upon test in a huge battery in an effort to measure as many aptitudes and abilities as possible. It has now become the fashion of many individuals and organizations, rendering the service of vocational counseling, to present the client with an impressive brochure illustrating his percentiles and profiles in many different areas. These pictorial and diagrammatic data may be of value in bolstering the ego of the psychologist, but are of doubtful value for making recommendations.

As a result of the data which the psychologist has obtained by the use of many standardized (how many are poorly standardized?) tests, the counselor emerges with a picture of the individual made up of a number of discrete parts with no semblance of integration or unity. How much time does the psychologist actually spend in trying to understand and evaluate the client as a person—an individual with patterns of responding to certain situations, with attitudes, likes and dislikes, prejudices, emotions, hopes, and frustrations?

Ability and Interests Related to Background

IF ONE carefully examines the recommendations of the psychologist, who has given the entire file of tests to a client, he will perceive that the recommendations are not based on the total body of data yielded by the tests, but primarily on the individual's intelligence and interests as related to his background of education and employment. If this is so often the case, how can we justify the expenditure of time, money, and effort in the administration and scoring of so many tests, that finally add little to our understanding of the client?

Such is the unflattering picture of vocational counseling today. What was it like twenty-five years ago when psychologists were first becoming intrigued by the new measures of intelligence, and there were no handy magical aptitude tests? We can be sure vocational counseling existed, even though it might not have had so impressive a title. What could the counselor do? How did he perform his functions?

He probably gave, in the main, educational guidance to students and since he had only intelligence tests to administer, he no doubt had, if he were a shrewd person with some understanding of human nature, an interview with the pupil to learn more about him. On the basis of the information obtained from an intelligence test, school grades and interview, he could do a very constructive piece of work. It is likely that this counselor worked in a school and therefore saw, for the most part, the retarded, the "problem child", and those who voluntarily sought his advice.

Era of Wonderful Nonsense

THEN came the present "era of wonderful nonsense"! Tests multiplied, educators grasped (and gasped) at the possibility of doing "scientific" guidance with the thoroughness, dispatch, and objectivity of the modern industrial assembly line. Psychologists, intrigued by the possibilities of such an extension of the field, attempted to guide everyone, and demanded more and more objective tests that could be given to hundreds at a time. Consequently, there was little time left to devote to the individual and vocational counseling, as an *individual* service, perished in the effort to save all. In some schools vocational counseling, so called, deteriorated to the point of allowing the pupils themselves to score their own tests, plot their profiles, and guide themselves. (The patient takes his pulse, listens to his heart, and writes his own prescription.) But we were quick to dignify this stupid process by calling it "Self-analysis" or "Career Study".

Perhaps we should return to the "horse and buggy" days!

New movements, like babies, often wander from the shortest route, and have to be replaced on the proper path. It is now time to turn back from this false course on which vocational counseling has embarked, and to re-define the goal and re-direct

the course. The remainder of this paper is devoted to: (1) an analysis of our instruments, the tests—intelligence, achievement, aptitude, personality, and interest inventories—to determine how much faith can be placed in them; (2) suggestions indicating how, under certain conditions, some tests can be eliminated; (3) methods for improving the vocational interview to make of it a vital instrument; (4) a discussion of the question of self-guidance.

Intelligence Tests Most Valid

I BELIEVE no one will dispute me when I say that intelligence tests are the most valid and reliable instruments we have. In the determination of intelligence one cannot usually dispense with the administration of one or more tests. This is especially true when guiding school children. However, in the counseling of adults, if the problem of further academic training is not involved, it is often quite practical to omit the administration of an intelligence test. A fairly accurate picture of the adult's level of intelligence can be obtained from the counselor's conversation with him and, from the education history. Of course, if the psychologist is in doubt an intelligence test should be given.

It is pertinent to emphasize here that the correlation between intelligence and scholarship in high school and college groups is only about $+ .50$, and the question of further academic training is not necessarily and immediately answered by the IQ or percentile obtained on the test. Further, it is important to keep in mind all factors that influence an intelligence test score.

Finding Educational Defects

TESTS of educational achievement are good measures (within a certain amount of error) of the pupil's acquisition of subject matter. When they are given to students the results should be compared with grades received. In the case of adults educational defects can be detected quickly by three methods: (1) learning about the school record; (2) inspection of certain tests already taken; and (3) brief, informal testing.

Learning about the school record.—After the counselor has taken a detailed history of the client's education he knows if the client has had difficulty with a particular subject (in terms of grades and the client's evaluation of his achievement) and which subjects were liked and disliked.

Inspection of tests.—In scoring certain intelligence tests, arithmetic and reading difficulties might be detected by a careful inspection of the test blanks. For example, difficulty with arithmetic is easily discovered if the client has taken an Otis or ACE test. If the score on the Otis test is below expectation on the basis of the history, or if subtests involving reading on the ACE test are far below subtests of non-language material, one might suspect reading difficulty.

Brief, informal testing.—If a reading difficulty is suspected, a brief, informal oral test of reading will often determine if a formal reading test is necessary.

Questions Value of Aptitude Tests

THE value of present-day aptitude tests for vocational guidance is questionable. For most of these aptitude tests validity coefficients, when given, are low (range $+.40$ to $+.80$). Some aptitude tests correlate very highly with intelligence, and may be considered to measure essentially the same abilities as does a general intelligence test.

If the validity coefficient is low, the prediction of an individual's ability to perform or learn successfully a particular vocation—the aptitude for which the test is supposed to measure—is open to a great amount of error. If the aptitude test correlates highly with intelligence, one might as well use an intelligence test. Bingham (1) in his recent book expressed this opinion clearly: "But there prevails a wholesome uncertainty—not to say skepticism—with reference to the extent to which the use of standardized tests of aptitude is advisable today" (Preface, VIII).

Screwly Results

EXPERIMENTAL studies within the past ten years have dealt aptitude tests almost lethal blows. Let me quote from Lipsitz and Lurie (3):

The Minnesota group found that men office clerks were superior to garage mechanics on tests of finger dexterity, tweezer dexterity, and manual dexterity. . . . On the Thurstone Clerical Examination, Morton obtained an average score for draughtsmen which was better than the average scores of office clerks and bookkeepers. . . . He found also that, on the O'Connor Wiggly Block, which has been used as a measure of mechanical and engineering aptitude, the average scores of draughtsmen and bookkeepers were just about the same. . . .

Again from Bingham:

MacQuarrie's Test for *Mechanical Ability* . . . has been found by at least one investigator to correlate with subsequent progress in office work better than do certain tests designed to measure *clerical* aptitude. Similarly, the number-checking and word-checking test, known as the Minnesota Vocational Test for Clerical Workers, has been found to correlate better than the MacQuarrie with measures of progress of toolmaker apprentices! . . . (p. 9)

The work done on the Minnesota Mechanical Ability Tests represents to most psychologists, including the writer, the most thorough, careful research ever done on the problem of devising aptitude tests. For that reason, I should like to quote from the book of the same name (5) several pertinent statements regarding validity criteria and predictive ability of these tests.

Coefficients of correlation between three tests: the Minnesota Spatial Relations, the Paper Form Board, and the Minnesota Assembly Tests, and three criteria: Quality, Information, and Quality and Information range from $+.35$ to $+.65$.

. . . The highest possible validity coefficient between any selection from *all* the available tests and measures and *any* of the acceptable criteria . . . was $+.81$. (p. 211)

. . . validity coefficients for the eight batteries. . . range from $+.55$ to $+.73$, only two of them being less than $+.60$. (p. 214)

. . . batteries were constructed which gave the following validity coefficients for the shops indicated: sheet metal, $+.47$; woodwork, $+.47$; electricity, $+.48$; mechanical drawing, $+.63$; and printing, $+.32$. (p. 215)

Tests and Success in Shop

THE authors obtained a correlation coefficient of $+.68$ between a test battery and shop success on 100 seventh and eighth grade boys and analyzed the data as follows:

It is possible, therefore, to measure the inaccuracy of prediction in terms of the amount of displacement from predicted positions. The summarized data on this point are as follows: 50 of the 100 cases were located exactly—that is, a subject with a given predicted rank actually received that rank; 45 of the 100 cases were located one sigma away from the predicted position; and only 5 cases were misplaced by two sigmas. This is evidence of predictions which are far superior to chance, but the test results are to be used not as absolute diagnoses but as tentative, though very probable indications. (p. 218)

And then a final word of warning which most counselors have overlooked: "The predictive value, even of very good tests, must not be overestimated" (p. 217).

This study of the 100 boys is very pertinent to our discussion. When we predict results from tests given to a large group of cases, and if the correlation is sufficiently high, we can always expect "predictions which are far superior to chance". But 45 out of 100 "were located one sigma away from the predicted position." In terms of percentiles, this might mean a shift from the 16th to the 50th or from the 50th to the 84th. And here's the rub—how can we ever know that the particular individual in whom we are interested is not a member of the unfortunate five who "were misplaced by two sigmas"?

Music and Art Tests

A WORD about music and art aptitude tests. From my own experience their value in vocational counseling is extremely limited. The few who will earn their livelihood in the fine arts have usually demonstrated their talents long before they might become candidates for guidance and, if so, do not require our services. Those who think seriously of entering this field at a later age, and whose accomplishments indicate some merit, should be referred to competent, disinterested experts for an opinion. I would certainly refuse to plan a career for anyone in these fields on the basis of test results.

A final word about aptitude tests that have been devised for various professions. In my opinion they are merely intelligence tests, and tests of specific information. Inasmuch as information about a subject is generally considered to indicate an interest in that subject, why not determine the interest directly? More about interests later.

From the preceding review of aptitude tests one can only conclude that their use in vocational counseling is, at the present time, not justified.

Personality Tests

ASK any counselor why he gives a personality test as part of his battery. The answers given can be divided into two groups. One group states an interest in, what might be loosely called, the degree of extraversion or introversion of the client. The reasoning is somewhat as follows: If the client is an extravert he could be a salesman, or work in an occupation demanding a maximum of human contacts; if he is an introvert he should work relatively alone, in a situation demanding a minimum of human contacts. The second group of answers indicates more naïveté. Some counselors expect the score on a personality test to render a short-cut to, and even complete knowledge of, the client's social and emotional adjustment.

For the sake of argument, let us assume that the personality tests are valid and reliable instruments. Even so they would be of little use to the counselor. We want a description of personality, and not a percentile. It is certainly more meaningful to learn directly from the individual what organizations he belongs to, details of his social and recreational life, the amount and nature of his extra-curricular activities while in school, etc. than to record a percentile of thirty on a social adjustment or extraversion test.

A picture of the client's early status in the family, that is, his relationship to his parents and siblings; his early school adjustment; early adjustment to other children, and an evaluation of the individual's security and happiness as a child are of tremendous value in understanding the client as he is today and in predicting future behavior.

Picture of Personality Wanted

TRAXLER (7) after a comprehensive critical survey of personality tests says:

Most of the tests and rating devices . . . are designed to yield a quantitative statement of personality in the form of a score or a division on a scale. These scores or ratings will be useful only if they make possible a better *description* of personality than could otherwise be formulated, for it is valid, reliable, and meaningful *description* of personality that counselors need in guidance. p. 6

We have assumed that the personality tests are reliable and valid instruments and criticized them because they did not yield a "meaningful description of personality." But the tests are not sufficiently valid and reliable for individual counseling. Let me quote again from Traxler.

Bingham sums up the discussion of interests as follows:

Notwithstanding the many studies that have been made, the validity of the various personality tests is still a matter of doubt. The greatest dif-

ficulty in establishing validity is that there is no satisfactory criterion with which to correlate the test results . . . (pp. 63 and 64).

Since it is generally conceded that the reliability of a test should be above .90 if it is to be used in individual diagnosis, most of the personality tests and scales are not very satisfactory for the study of individuals. . . . (p. 65)

Personality tests may have some value when given to hundreds of students for the purpose of detecting the few who should be referred to the mental health clinic. However, it is the writer's opinion that they are of very little value, when used for the purpose of gaining a better understanding of an individual, except insofar as they, like interest inventories, serve as good springboards for the interview and furnish clues that should be followed up in the discussion. Again, it is the question of the value of tests for groups, versus the value of tests for the individual.

Finding a Man's Interests

EVER since psychologists have realized that the mental attitude, called interest, is involved in the choice of an occupation and one's success in it, attempts have been made to measure and evaluate these interests objectively. Inventories have appeared that indicate interest in specific occupations, general fields of occupations, studies or branches of learning, and specific activities. Other inventories are a combination of all. Some add interest in recreational activities and hobbies, and attempt to learn something about the individual's social adjustment.

My objection to the use of such inventories is that the counselor tends to take too seriously the objective results, and accepts them as a substitute for the penetrating analysis that should be made of the client's interests. I prefer to use the results of such measures only as clues, as starting points for discussion. I attempt to evaluate the strength and duration of the expressed interests and to correlate them, if possible, with the client's background.

For the counselor, interest inventories and the scores they yield are of assistance in focusing attention on the problem, furnishing points of discussion in the vocational interview, and indicating specific needs for further experience as a basis for making in the future more dependable appraisals of the person's real interests. (p. 82)

Vocational Counseling II By Interview

BY STANLEY G. DULSKY

GREATER importance must be given to the vocational interview than hitherto. The emphasis should shift from the giving of tests supplemented by an interview to an interview, supplemented by tests. Counseling should not be done by first, routinely, giving the client a battery of tests; one should have an interview first, and then select whatever tests are necessary. Sometimes, when counseling adults, no formal tests are necessary; often only an intelligence test and an interest blank are required. Ruch and Segel (6) also criticized routine testing:

These sketchy remarks can do no more than hint at the possibilities of patterns of characteristics, not pure matters of aptitudes—but roughly to be described as interest, habit, and personality patterns—that may far outweigh aptitudes in the total adjustment to a given occupation. It is, therefore, manifestly impossible to embark upon vocational counseling in a mechanical fashion by routine administration of aptitude tests, even if such tests were available in far greater numbers and refinements than is the case today.

(p. 37)

Area Covered by Good Interview

THE interview, if conducted properly, will yield not only specific background information, but also knowledge of the feelings, wishes, prejudices and ambitions of the client. A good vocational interview, as I indicated in a previous article, (2), covers the following areas: (1) education history; (2) employment history; (3) vocational aims; (4) interests, recreation and hobbies; (5) family background; (6) health; (7) practical considerations. The most important characteristics to evaluate as a result of the interview are the *motivation* and *personality* of the client.

Determining Motivation

ONE can obtain some estimate of the motivation by noting the following: What is the relationship of the client's scholarship to his intelligence, i.e., was he working up to capacity or far below it? How many hours a day did he devote to study? Do his outside activities indicate any desire for self-improvement as exemplified by an organized program of reading, night school classes, home study courses, or apprenticeship?

In addition, more subtle clues are found in the manner in which the client responds in the interviewing situation. When he states a vocational goal, if he has one, does he say it with much enthusiasm or does he give it very glibly without

much affect? Does the counselor get the impression that the client would work hard to overcome obstacles, or does it seem as if a slight defeat or frustration would bar his route to the goal?

Let me illustrate by considering the case of John, nineteen years of age, who was prepared to enroll in the State university. When asked to give his vocational aim, he replied in an apathetic manner with a shrug of the shoulders, "Pa wants me to be an engineer." Is it very difficult to gauge the strength of this expressed lack of interest in the occupation? Could any test score be more meaningful than the above statement?

Often one can obtain further clues regarding the strength of drive, by trying to correlate a specific vocational aim with background information. For example, is it possible to understand why this client has chosen this particular vocation? Is the client merely following the wishes of the family as a path of least resistance (as John was)? If so, the motivation is probably weak. Is he following this path because of certain strong emotional experiences in his life? If so, the motivation is probably strong.

A good interview is also a device for obtaining sufficient information to formulate a descriptive account of the client's personality, and a much more vivid, meaningful account than can be obtained by the use of a dozen personality tests.

Important Keys to Character

IF the client has been spontaneous, and if the interviewer has asked appropriate questions, the client's entire life should be fairly well known and understood. Special emphasis must be placed on the client's adjustment in his home when a child; his relationships to his parents and siblings should be clear. From the education history one will have obtained material regarding the client's social adjustment in school, how he got along with his fellow students and teachers, if he were active in any school activities such as athletics, clubs, dramatics, newspaper, etc., if he were an officer in any organization.

From the recreation history one learns of his present social adjustment—whether he has a meager or a rich social life, whether he goes out with many people or with a few companions, whether he is active in any organizations, whether his recreation is mainly of the solitary type, etc. As an example of how much one can learn about a person in an interview, let me cite one case.

Picture Obtained by Interview

A school teacher, age thirty-one, who had been teaching in elementary school for the last eight years, was a client for vocational counseling. The interview revealed that she was one of several children from a very religious European background, that her parents were almost illiterate, that the mother was the dominant member of the family and had old world notions about the rearing of children. This girl had to do most of the housework

and had to run away from home, literally, to continue her education in a state teachers' college.

Now that she was working the mother forced her to live at home and to give most of her income to the family, since the father was receiving only a small pension from the company for which he had worked many years as an unskilled laborer. The mother did all she could to discourage the client from going out and meeting people, and greatly discouraged any attempt to bring friends to the home. As a result, the client had a very meager social life and was anxious to move away from home and live in a girls' club.

This move, she believed, would enable her to break the strong domineering influence of the mother and enable her to make a better social adjustment. Naturally there was great resentment toward the mother. Because of her unhappy childhood her constant aim in seeking a vocation is to be of service to the under-dog, and she expressed a desire to specialize in the teaching of mentally retarded children.

Is not this picture of the young lady much more complete and richer in describing her present social adjustment—and reasons therefor—than would be a percentile of twenty on a social adjustment test?

The interview should, also, further clarify the client's interests. As I said earlier, the objective results from an interest inventory should be utilized only as a beginning to inquire further, and in more detail, about a person's interests. Very often the total score masks important details, and I have learned from experience that a careful inspection of the inventory is essential. I use my own revision of the Brainard blank and question each item answered by a No. 5 (indicating that the person likes very much to do or would like to do a certain activity). I look for clusters of interests or patterns which seem consistent with the interests of various occupational groups. During the discussion the counselor learns whether a person's interests are of a broad variety or restricted to narrow fields. One also forms an impression of the strength of the interests.

What Does the Man Expect from the Job

IT is important to supplement any interest inventory by obtaining answers to the following questions: What does the client expect from an occupation in terms of remuneration, satisfaction, and prestige? Does he prefer to work directly with people or more directly with things? Does he prefer outside work or inside work? A position requiring traveling or a sedentary one? Does he like to work in the company of other people or relatively alone? How did he become interested in a particular occupation? Has he any friends or relatives in such work, if so, has he talked to them about the work? Exactly what features of a desired occupation appeal to him?

Finally, I find it very informative to ask the client the following question: If I had all the jobs in the world on my desk, and they all paid the same salary, and you could choose one and begin work at it tomorrow, and work at that job the rest

of your life, what would you choose? I generally ask for three choices. Very often formerly unexpressed vocational aims and interests will be elicited.

Counseling Takes Four Hours

FROM what has been said thus far, it is obvious that there must be less dependence on objective tests and more dependence on subjective methods. This is necessary, because, at the present time, the instruments with which we must work, while objective, yield results that are, sometimes, meaningless and often pernicious.

At their best, then, tests are purely pragmatic instruments. Their wide use has assembled great masses of data, but they penetrate no deeper into the make-up of the human personality than ordinary experience and common sense. They only cover a wider area. The great criticism of the testing movement is that it has naively proceeded on the assumption that clever and convenient devices are capable of feats of insight, discrimination, and measurement for which they are utterly and obviously incompetent. (4) (p. 534).

It is now clear why vocational counseling cannot become a "mass" movement. It is distinctly an individual process, as individual a process as a client's consultation with his attorney, or a patient's interview with a psychiatrist. A good interview, including the initial interview (mainly for information) and the final conference (after test results are obtained) is time consuming. I find that when counseling adults it takes on the average of three to four hours. If only two hours are consumed in testing, then the entire procedure requires about five hours.

Mental Testers Cannot Counsel

MOST important, vocational counseling is not a service that can be rendered by a "mental tester." Knowledge of tests and their value is, of course, important; but, much more essential, is knowledge of *people*. A good counselor must have a thorough understanding of personality and its development and must be able to make a quick diagnosis of the client as a *person*. The value of the recommendations will depend on the skill, insight, and art of the counselor. Let me quote again from Mursell's caustic article:

Now it is altogether plain that in the present state of our psychological knowledge no kind of precision diagnosis of attitudes, interests, appreciations, and abilities whose very existence is open to doubt can be considered even remotely possible. A very knowledgeable and experienced counsellor, spending much time with an individual, taking into consideration every aspect of his personality, and relying on all sorts of hints and intimations which may be of the highest significance although they cannot be standardized at all, may be able to form a valuable opinion as to his psychological make-up. . . . (p. 530).

You Cannot Guide Yourself

EARLIER in this paper we asked if students could guide themselves; the obvious answer is an unequivocal, "No." They cannot guide themselves any more than they could give themselves physical examinations. They are not pre-

pared by education and training to do either. Of course, anyone can take an objective test, score it, and look up the norms—but that is not vocational guidance, any more than the temperature reading of a thermometer that had been placed in your mouth, is a physical examination. Laymen are unable to evaluate the tests, and cannot interpret the findings, they cannot diagnose their own personality and motivation, they are unable to make a comprehensive survey of their interests, and no one (not even a student) can be objective about himself.

The practice, in some schools, of having students learn about occupations and vocational possibilities is a good one and their "Career Study" should be limited to that.

Professional Circumspection

IN GIVING results to clients one must be as circumspect as a physician. Profiles and diagrams should not be given to clients, who do not have a background in testing, and cannot interpret the results. Most laymen do not know what a percentile is, and a chart showing a client's percentiles is meaningless, if not harmful, to him. Furthermore, I believe it is distinctly unprofessional to give numerical results.

To make an analogy, when we go to a physician for a thorough examination he does not give us a chart with all the findings of our blood pressure, pulse rate, urinalysis, blood chemistry, etc. He obtains the results, integrates them with other information, and tells us verbally about our condition. He might say, for example, "Your blood pressure is satisfactory." That is much more sensible than telling you that your blood pressure is 130 over 90. Similarly, psychological results should be given in descriptive terms that the client can understand and the integration of all the findings should be stressed.

When interpreting data to a client, he should not be given the percentile, but a brief descriptive statement of the meaning of the percentile. For example, if a percentile of 50 were earned on the ACE Psychological Examination for College Freshmen, the client should be told that in comparing his performance on this test, with the performances of thousands of college freshmen, we find that he makes about the average score. This means that in the ability or aptitude to learn college material he would be about average when compared with thousands of college students from many different schools. Then the counselor should continue by pointing out that this does not necessarily mean that his scholarship will be average.

Giving Test Scores Dangerous

INTELLIGENT quotients should never be given either but should be interpreted in a similar manner. It is always dangerous to give a numerical score to a person who is unable to interpret correctly the significance of it, and who might be disturbed by a slight decrease in that score if another similar test is given on a subsequent

occasion. Furthermore, the results, particularly of an intelligence test, might represent a blow to a client's self-esteem and aggravate the anxiety of a budding neurotic.

In closing, I wish to emphasize that the analysis of the individual is only one phase of a comprehensive counseling program. We need, in addition, an analysis of occupations, the result of which is expressed in the same terms as the analysis of the individual, for purposes of comparison. Of equal importance is information about vocational opportunities. Until all these data are available, our recommendations must be made in general terms and in a spirit of humble modesty. Large areas of endeavor might be recommended and large areas eliminated. Only rarely can, and should, specific occupations be recommended.

Summary

TESTS of intelligence and educational achievement are the most valuable for vocational counseling. Interest inventories, if used properly, may be helpful. Personality tests are of very limited value; aptitude tests of no value.

2. Because of the lack of qualified instruments greater emphasis must be placed on the vocational interview as a means of diagnosing personality and motivation and of identifying and evaluating interests.

3. Vocational counseling is distinctly an individual process—it cannot be done “en masse”; it requires skilled psychologists, not “mental testers.”

4. Students cannot guide themselves but they should learn about occupations and vocational possibilities.

5. Results of the counseling—including test and the interview—should be given with great care; descriptive, not numerical, statements should be made; recommendations should be general because of the incomplete and inadequate information available.

From Studies from the Institute for Juvenile Research, Chicago, Ill., Series C., No. 399.

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Tony Had Been Fired Twice, But in Neither Case Had the Foreman Secured the Accomplishment, Within Proper Limits of Quality, Cost or Time of Completion of the Job He Wanted Done. And in Neither Case Had It been Tony's Fault.

Supervision *and* Instruction

BY ALFRED W. POND

Kearney, N. J.

TONY was baffled. The foreman had instructed him to dig a ditch so many inches wide, so many feet deep, from this marker point to that one. The foreman estimated that the job should be completed by quitting time the next day. Everything had gone well until now, the second morning, with the foreman nowhere around to consult, when a boulder had been encountered, much too large to be removed without dynamite or power tackle. Tony had neither. But Tony was conscientious. He wanted to do a good job, and he did not want it to take materially longer than it should.

Worker Uses Own Initiative

TONY thought. Ah, an idea! Tony exercised the necessary initiative and ingenuity to help himself out of the jam. With his pick axe and shovel, and with the expenditure of much sweat and hard labor, he hollowed out a large enough cavity in the ground below and just along side of the rock, to receive it. Then by prying, he managed to turn it over and drop it into the cavity. It took a good half-day extra to do it, but at least, the job was progressing all the while and was not held up for that length of time.

When the foreman came around at the close of the day, and found the job not done by some four hours, he flew into a temper and fired Tony for incompetence. You see, he had wanted to pour the entire ditch full of concrete to form a foundation. The rock could have been left standing and would have been just as good a footing for the foundation as the earth itself. Maybe better. And here Tony had run the

cost of it 'way out of bounds', first by taking time to remove the rock, and second by making a larger fill of concrete necessary.

Tony was blue. First he had been stumped by a material problem, but had licked it. Now he was flabbergasted by a human relations problem, though he might not have called it that. But Tony was not wholly devoid of a philosophical view point. At least, he argued, he had learned a lesson that would be valuable to him on the next job.

By coincidence the next job was similar. The boss instructed him to dig a ditch of given dimensions. Tony grinned. He'd know how to tackle it this time. He grinned all the harder when he again ran into a big, firmly-embedded boulder. He ran his ditch right up, over and beyond the boulder with straight, clean, properly dimensioned side walls. And he got through with the job in good time. When the boss came to inspect it, he flew into a rage and fired Tony for laziness and careless working. This boss had wanted to lay a pipe line in the ditch Tony was supposed to have dug!

Fired Twice

TONY had been twice fired, but in neither case had the supervisor secured the accomplishment, within the proper limits of quality, cost or time of completion, of what he intended and wanted accomplished. Neither of the bosses had explained the purpose of the ditch he asked to have dug, or made sure that Tony had understood the full import and implications of the instructions.

A supervisor in the office of a business concern requested his secretary to prepare a rough draft, with five carbon copies, of what he had just dictated, and to have it ready for an appointment he had with his superior and others on that subject, in fifteen minutes. It was not a short document, and the secretary presented it to him about three minutes before the conference. The sheaf consisted of the bond and *one* carbon copy. Why?

Because it was the customary practice of that particular office to have the set-up consist of the original and one carbon copy, when a rough draft was specified, and the secretary had not heard, or had misunderstood the request for five carbons. Now the supervisor needed the other four copies. He needed them badly, and he needed them then. The only way to get them now would be to hold up the conference another nine minutes. He hated to do that, but what else could he do?

Secretary Not Fired

WE DID not go so far as to fire the secretary. A little reflection showed that all the firing in the world, all the scolding, all the dirty looks, all the sarcasm, all the manfully silent suffering would not turn back the hands of the clock and get that job done right, and on time the first time.

What, then, would have? And what would have gotten the ditch digging jobs

done right? A little extra thought and effort, and a few extra minutes of time spent when the instructions were given, to see that they were properly understood before work was started, would have.

Are you a supervisor? Are you responsible, through the supervision of the work of others, for getting out more work than one man could possibly get out himself? Is time precious to you? Are time (as in the present nation-wide rush of defence work) and cost important elements in getting out the work you are responsible for? Do you want to know how to save time in the long run and help keep supervisory and production costs down?

See That Instructions Are Understood

THEN *spend* a little extra time. Whenever you give an instruction, spend a little extra time to see that it is properly understood and interpreted. If so, the job stands a good, though not necessarily perfect, chance of being executed properly. Not properly understood and interpreted, it stands not the ghost of a chance of being properly executed. And you, the supervisor, just as much responsible for its execution as the one who actually does the job if not more so, stand not a chance in the world of getting it done right the first time if your instruction has been misinterpreted.

It has been said that in the army which is sometimes called the materially most efficient in the world, it is a rule that all verbal commands, other than group commands, are to be repeated back by the subordinate immediately upon receiving them, and before he sets out to execute them. On the battlefield, seconds count tremendously. But losses can be tragic. An instruction in the army is not executed until the instructor has taken the necessary extra time to make sure that the item of instruction has been understood by the instructee, in the way originally intended by the instructor.

If you were a teacher in a school or college, you would be in duty and conscience bound to place before your students the subject-matter of the lesson assignments in the clearest, completest, most interesting and most understandable way you knew. Once you had done this, you might ask yourself, shall I (a) drill, drum, wheedle and pound it into their skulls, or (b) let them take it or leave it at their own option. It might even be conceded that as a paid teacher of paying pupils, you would have a perfect right to adopt *either* attitude.

Limited Values of Scolding and Firing

BUT as a paid supervisor of paid employees in business, industrial, civil service, or other management, there is no choice from any viewpoint whatsoever. True, the employees are paid to do their work. But you are paid to *see that it gets done*; and done right, on time and at reasonable costs. If a student flunks, it affects the teacher only indirectly, and the pupil is the main loser. If an employee under your

supervision flunks, it affects you directly, and you are the main loser. Firing him will not solve the problem. Scolding him *may* forestall a similar situation the next time. Neither of these is a satisfactory, preventive or reasonably sure-fire measure. Both are measures of hind-sight. Adequate instruction, on the other hand, is a measure of foresight, and can be depended upon in the majority of cases to produce the desired results. It is a form of insurance.

How to instruct properly, is not the subject of this colloquy. Recognition of the necessity for adequate instruction by supervisors, and the desirable results to be obtained by it, is the only object here. There are many books, authorities and opportunities to enable you to brush up on instructional methods. Go to them or to the people who can tell or show how, for instruction in how to instruct. Just this much here. Without trying to outline the methods of accomplishing the various steps they have concluded should be included in the procedure of successful instructional technique, three of the important steps agreed upon as necessary by many authorities are described, though possibly in unorthodox language, as follows.

Three Steps in Checking Instructions Given

ASCERTAIN whether a reasonable proportion (humanly speaking) of the interest, attention and concentration of the listener is focussed on the general subject of the forthcoming item of instruction. If not, endeavor to bring this important state of affairs about.

Establish how far the listener's existing knowledge and experience on the immediate subject extends, and start building your instructional structure at that point.

At least once, at the end of each item of instruction (possibly several times, step-wise, as the instruction proceeds), check up and make sure that the listener has followed you, has understood your instruction, and has *interpreted it the way you intend that he should*.

And the funny part of it is, it does not matter the least whit how perfect you think the technique and thoroughness of your instruction has been, if you don't check up on its interpretation by the listener. It matters not how perfect the technique and thoroughness actually were, if you don't check up on its reception. It doesn't matter how much you think he *ought* to understand it, if you don't check up. It doesn't even matter how stupid and blameworthy you may think the listener is for not understanding your instruction, or parts of it. From the standpoint of getting the job done correctly (and that is your job) there is only one criterion by which to gauge the success of supervisory instructional effort. And that is: does the recipient understand and interpret it the way you want that he should?

Results of Checking

THERE is only one way of knowing this, and that is by spending the extra time and effort necessary to find out. If you do a good job of instructing in general, but do not check up, the chances of the job to be based on that instruction getting

done correctly the first time will be something like, say, 87% on an average. If you do a good job of instructing in general, and then check up on its reception, the chances will be increased to something like, say, 97%. Can you afford to gamble on the effects on your output, and on your rating, of the errors involved in the avoidable 10% of the cases? Would you think it wholly outside the bounds of reasonableness to consider that if a job, attempted by an employee on the basis of an item of instruction administered by his supervisor, gets wrongly done the first time, the supervisor, not the employee, should be fired?

What to Do and How to Do It

Now, the word instruct and instruction has been used in two separate senses herein. Intentionally so. One is *what* to do. In this sense it is more or less synonymous with command, request, direct. The other is *how* to do it—i.e., teach, impart knowledge. An analysis of the matter, cursory or exhaustive, will show two facts. Facts that will probably be interesting to you as an individual, and will definitely be valuable to you as a supervisor.

These are first, that the methods, techniques, rules, mechanics, failures and successes of how to instruct are basically the same for these two different kinds of instruction. Are you teaching a man how to swing a maul or to operate an electron microscope? Or are you telling him what to sock with the maul, or what object you want photographed with the 'scope? It's all the same so far as the methods and your skill are concerned in getting the idea across to him, completely, understandably and so that the idea will lodge and take effect as you intend that it should. The second fact is that as a supervisor, two of the most necessary, important, frequently recurring and time-consuming functions of your whole job are instruction how; and instruction what, when and where.

Try It and See the Result

If you believe that the multiplicity of additional seconds expended at the time each application of instructional effort is made by you will add up to a total greater in value than the value of the lost time, work, cost and quality of your supervisee's output, just forget this screed. There *are* those who believe the other way around. It might just possibly be worth your while to try it out, conscientiously, for a few times, and determine for yourself whether in your particular case the results will justify the cost.

In a Recent Class Designed to Improve Reading Ability in a Large Eastern University a Sizeable Number of High Ranking Executives Enrolled Because of a Felt Need to Improve Their Ability to Deal with All Their Paper Work.

Reading Ability *and* Executive Efficiency

BY S. VINCENT WILKING

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IN THE present state of emergency both government and business organizations are doing their utmost to eliminate inefficiencies which will lead to wasted time and effort. The results of painstaking time and motion studies will be applied on the production floor; high speed tabulating equipment will be installed and utilized to the full so as to avoid the expenditure of valuable time on routine clerical operations; and new forms to facilitate accounting will be devised for the same urgent reason.

Acceleration of Executive Function

WHILE all these factors are taken into account in the speeding up of emergency production little is done as regards the acceleration of the functions which the executive is expected to perform. An analysis of the executive's duties resolves them into one important function: the formulation and execution of quick decisions. These decisions must not only be made with dispatch but with a high degree of accuracy after adequate deliberation on the factors involved.

Since few executives can personally investigate all the facts which have a bearing on the decisions which they must make, they must, in ninety-nine cases out of a hundred, rely upon information which they acquire from the printed page. When all is said and done, then, it is reading ability which is one of the most important tools or skills which the executive possesses. If this tool is in good condition, if he reads rapidly and comprehendingly, if he suits his method of reading to the task at hand, if he is alert to implications often missed by the average man, then he will be a most valuable and efficient asset to his firm.

But if, on the other hand, his tool is dull, if he must plough laboriously through the printed page, if he must frequently re-read to check on the import of what he has covered, if he is dull to the generalizations and inferences hidden in the matter so painstakingly perused, then he is a questionable asset to the firm with which he is associated. And that such men exist, that many make important decisions on the basis of imperfect knowledge, distorted or minimized through the utilization of a dull tool, cannot be denied.

Example of Executive Improvement

THERE have been studies made by psychologists on the efficiency of adult reading. While these studies have not been directed especially at the executive they are suggestive of the conditions which might well be found among this group. In a recent class designed to improve reading ability at a large Eastern University a sizeable number of high ranking executives enrolled because of a felt need for the improvement of their reading ability. That they were deficient in basic reading skills at the beginning of their training was obvious, and that they improved visibly in these same skills after a relatively short period of instruction was even more apparent.

Reading is a psychological process which, after years of thorough investigation, is now amenable to rapid improvement under the guidance of those trained in remedial methods. The majority of the investigations on the improvement of reading ability on the adult level have been conducted on the college population. To the average man it is somewhat surprising that the young man or woman who has gained admittance to the highly selected group of college students should still be deficient in a skill which he feels should have been taught quite thoroughly enough in the elementary school.

Nevertheless, it is quite safe to say that probably twenty per cent of the population now in American colleges is deficient in basic reading skills. If this is true of those in college it would seem equally possible that the situation is comparable in the ranks of executives in business.

Reading Is Not a Reflex Process

TO MOST people the reading process appears to be both unitary and simple. For these same people reading has become an almost reflex process which requires little conscious effort or analysis. On the other hand many who view reading thus seldom read little if any more than required, usually excusing themselves on the ground that they "get little pleasure from books" or that they "have done enough work during the day so that they want to relax when they get home."

The studied avoidance of reading as a means of relaxation is quite frequently indicative of a reading deficiency which may not be admitted. The following discussion may serve to delineate some of the complexities of the reading process which go on all unconsciously in the good and efficient reader but which are conspicuous by their absence in one who is deficient in reading ability.

Speed of Reading Can Be Increased

FROM the point of view of the efficient use of time the speed of reading is highly important. High speed of reading should not, however, be at the expense of comprehension—the two should progress together. Among the improvable factors in reading, speed is most readily increased. There is ample corroborative evidence to be found in the professional journals of education and psychology to warrant this statement. The writer, for instance, was able, on repeated occasions, to improve the average speed of reading of college groups over a hundred words per minute in fifteen class sessions of less than an hour each.

The value of rapid reading to the executive cannot be over-emphasized. Let us take a purely hypothetical case for illustrative purposes: An executive whose reading speed is 200 words per minute spends an average of two solid hours per day in reading correspondence, reports, journals etc. In a week's time at this rate he is able to cover approximately 144,000 words of material. However, if this man is able to increase his speed of reading to 300 words per minute (well within the realm of improvability) he will be able to read 216,000 words in the same time—a difference in amount of material comparable to a good sized novel or text.

Skimming Is a Profitable Practice

ONE phase of rapid reading which is either neglected or overworked is that which goes under the heading of skimming. Skimming is a highly profitable practice when applied at the right time to the right material. When the executive must answer a specific question (the answer to which may be found in a body of written material) he may most properly utilize skimming. He will waste much time if he slowly peruses a huge mass of irrelevant material, profiting neither himself nor his company. Therefore, an understanding of the judicious application of such practices as skimming and rapid reading can surely save valuable time and free it for more economically useful endeavor.

Doubling Effective Comprehension

HAND in hand with speeded reading must go a thorough comprehension of what is read. Too frequently it is not realized that written material has a pattern, and that if the key to this pattern is found the relationships between the facts, generalizations and illustrations presented on the printed page are quickly seen. The poor reader deals with details as he would with a series of beads presented to him one after another. He strings them on a thread as they come, with little perception of their pattern, failing to note their inter-relationships, and the common thread which runs through them all, which is the writer's main idea.

In short, an inadequate understanding of the organizational aspects of written material will do much to retard the reader's comprehension as well as speed. The

executive who can unfailingly and speedily see each important point as the writer makes it, without being led astray by illustration and digression, will cut his labor in half and double his effective comprehension. This phase of reading can also be taught efficiently and in a reasonably short period of time.

Associated Reading Is Creative

THERE can be no attempt here to cover adequately all the important factors which are operative in efficient reading—it is sufficient that the possibilities of good reading skills as they apply to the business executive be highlighted. One other phase should, however, be indicated in closing. For lack of a better term this phase may be called associational reading.

Reading has been termed an aspect of the thinking process, and probably with good justification. This holds only when the material read is employed as a springboard to the thoughts and interpretations of the reader. In comprehending, thorough-type reading the reader assumes the rôle of the blotter, taking in all the information possible. In associational reading he participates with the author in a discussion, bringing to bear illustrations from his own experience, drawing generalizations warranted by the facts presented, but overlooked or ignored by the author, detecting bias in the author's outlook, seeing applications where the author saw none.

This type of reading is highly important if the executive is also to fulfill a creative function, and may be the source of extremely important improvements in production, merchandising or advertising methods stemming from the executive mind. This type of reading too may be taught and improved. Methods for its improvement are still in a developmental stage, but the indications are that they can be developed rapidly and bring fruitful results.

A picture of potential improvement has been painted, which has deep and significant implications for the improvement of the administration and conduct of business. It is not felt that the importance of reading ability to the executive has been over-estimated nor is it felt that the possibilities of improvement have been presented in too rosy a light. A word of warning, however, should be given.

More Work More Efficiently Done

SPECIALISTS in reading are highly trained, and the successful ones must have a thorough acquaintance with a vast amount of experimental evidence from which they must cull the wheat and reject the chaff. For this reason it is not advisable that one who is untrained in the special methods of remedial reading be allowed to institute any program of remedial training for executives in business. But, on the other hand, a remedial program, under the direction of a trained reading specialist, given to those executives who have been found to be deficient in basic reading skills (and this can be discovered by the use of adequate diagnostic instruments) might well result in the tangible dividends of more work more efficiently done.

Book Review

Book Review Editor, MR. EVERETT VAN EVERY
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WORK BEGUN

By Lawrence K. Hall. New York: Association Press, 1940, pp. 154, \$2.00

Reviewed by Forrest H. Kirkpatrick

In this little book the author reports a study concerned with the impressions made upon beginning Y. M. C. A. secretaries by various professional experiences. He reports on their feelings of satisfaction and dissatisfaction, their sense of personal and professional status or lack of it, their sense of success or failure in their work.

The-most marked differences between the group of well-adjusted secretaries and the poorly adjusted secretaries were found in their staff relationships, especially with the general secretary; in the amount and quality of their supervision; in the general atmosphere in which the work went on. Differences appeared between the two groups in terms of their belief in the association as an agency interpreting the highest religious values. Other differences were indicated in their adjustment to community life and in their sense of personal growth and status. There are, of course, great overlappings and there is certainly no clean cut differentiation between what goes with good adjustment or with bad adjustment.

Hall offers some suggestions for the Y. M. C. A. personnel procedures, viz: 1. better recruiting, 2. attention to the specific areas of difficulty indicated by this study, 3. better understanding of relationship between staff members and the whole movement, 4. improvement in local personnel procedures, 5. better professional standards and procedures for the national bodies, 6. achievement of the larger view that the Y. M. C. A. cultivates great social and religious ideals.

Within the limits of reliability mentioned by the author the book indicates what college men entering the secretaryship of the Y. M. C. A. may expect to find. They can know with some assurance what disappointments and what satisfactions await them. There is, of course, nothing peculiar about this sort of situation, hence the book can not be classed as particularly significant or illuminating.

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There is a Difference Between the Ability and the Willingness of Workers to Abide by the Safety Principle. When the First Factor is the Main Cause of a High Accident Rate, Special Safety Means Must be Used.

The Psychology of Safety

BY CHARLES S. SLOCOMBE

Personnel Research Federation
New York, N. Y.

WHEN you go into the reading room of a library you expect to find quiet, and to act quietly—no laughing out loud, no talking, no stamping of feet, no dropping of books.

There may or may not be signs, requesting silence, but there is almost silence.

This behavior of people in libraries is brought about because they go there to read, and they cannot concentrate on their reading if there are distracting noises. Anyone who fails to behave quietly, therefore, immediately earns the disapproval of all others in the room. Seldom or never is it necessary for the librarian to warn or discipline anyone, because there is a kind of unorganized self discipline among the people present.

Self Discipline of Workers

SAFETY in factories is in many ways similar. Workers are expected to act with care to avoid accidents, so that they will not injure themselves, or the others present, and will not upset others by the shock of seeing blood or pain.

There is a general pattern of safe behavior, which is imposed by the unorganized self-discipline of the workers.

This is the theory. But Gordon Allport, Professor of Social Psychology, has studied the behavior of people in libraries and churches, to see how far the theory holds. He finds that little incidents happen that lead to brief conversations, generally in a whisper, but which disturb the silence.

A girl may drop her handkerchief, and a man picking it up may say, "Is this

yours, miss?" and she reply, "Yes, thank you." Or a chair may have a hat on it, and no others being vacant, a man may say to the occupant of the next chair, "Is this seat taken?" and have the reply, "No. I'll remove my hat".

Wake Up, Pa, You're Snoring

OR IN church a woman may wake up her husband during the sermon with the words, "Wake up, Pa, you're snoring." A small boy may say to his mother during collection time, "Say Ma, can I have a nickel?" Or two old maids may whisper comments on the new hat the preacher's wife has on.

These are little incidents that, more or less, have to happen, but their happening does not mean that the people in libraries or churches are not in general "conforming" to the general principle of silence. Allport in his studies has noted the frequency of occurrence of these brief conversations, and has developed curves, by the shape of which he can tell whether there is general conformity to the rule of silence, in spite of its being broken occasionally.

Similarly in a factory, though the safety principle may hold, there may be occasional accidents of greater or less seriousness. And again it is possible to determine by statistical means, from the frequency of accidents, whether the workers are conforming to the safety principle, or trying to.

Principle Determines Safety Work

IN SAFETY work the principle of conformity is most important, because it determines the type of safety effort that must be made. Generally if there are many accidents, but the curve shows conformity to the safety principle, the accidents are due to hazards in the working conditions. And the safety effort must be directed to reducing them. But whether there be few or many accidents, but the curve shows non-conformity to the safety principle, then the safety effort must be directed to bringing about conformity.

The basis of the idea of conformity is that any departure from it, such as the incidents in the church or library, or accidents in a factory happen by chance. They may therefore happen to anyone, and everyone has an equal chance of their happening to him or her.

But Newbold, studying accidents in munition factories in England during the last war, came across the fact that some people in factories had an unduly large share of accidents. They were not conforming to the safety principle.

He then used a mathematical formula to study the accident frequency in factories. If there was conformity, then safety work was to be of one type, if there was non-conformity it was to be of another type.

As, among a group of workers, the number of accidents is very small, if there is conformity, it is expected that the accidents will be distributed among the workers in accordance with the law of small probabilities, known as Poisson's law. If the

distribution is not according to this law, by a wide margin of difference, then that is proof that there is non-conformity, that is that there are some workers present who are incapable of avoiding accidents.

An example of a non-conforming group of employees, taken from a study by Slocombe and Brakeman, is shown below (Table I). In this table are shown the actual number of accidents found in the records, and the number which would have been expected according to Poisson's law.

It will be seen that the difference between these two distributions is that there are too many people having very few accidents, not enough people having a medium number, and too many having a large number of accidents. This is a typical non-conformity distribution.

We will defer further discussion of conformity, for a period, to consider the development of the safety movement, and how conformity has come into it.

TABLE I

ACCIDENTS PER PERSON	PERSONS HAVING THESE ACCIDENTS		
	Actual Number	Expected Number	Difference
0	217	161	+116
1	326	313	+11
2	864	403	+66
3	458	514	-56
4	268	401	-144
5	148	252	-107
6	69	131	-62
7	86	59	+27
8	46	23	+23
More than 8	48	10	+36
Total	2300	2300	0

Development of Safety Movement

WHEN the safety movement became organized some thirty years ago, it was found that working conditions were bad. Workers in mines were killed by rocks falling on them, because roofs of tunnels were not properly propped up; they were killed by explosions of gas and mine dust; workers in steel mills fell into cauldrons of molten iron; longshoremen had bales of cotton dropped on their heads; workers in meat canneries lost their fingers in chopping machines; welders got hot sparks in their eyes; and machine tenders slipped on greasy floors, and dropped pieces of heavy material on their toes.

So the safety movement set to work to reduce the hazards of work. Proper propping of mine tunnels was studied and insisted on by government inspectors; studies of mine explosions were made, and preventative measures developed; the steel industry engineers redesigned machinery and methods to eliminate every possible chance of accident to steel workers; winches on docks were improved, and winchmen instructed how to prevent loss of control of loads; guards were placed on

machines in meat canneries, and other factories; goggles and shields were invented to guard eyes; and non-skid flooring material, and safety shoes were invented to prevent injury to legs and feet.

In fact the safety movement went to work, through its safety engineers, to make working conditions as safe as possible, and reduce to a minimum the possibility of accidents.

The National Safety Council's Job

IN THIS movement, the insurance companies, who were carrying workmen's compensation for injuries, and government departments of factory inspection, played a most important part. The National Safety Council, backed by insurance companies and industrial companies, was the agency entrusted with the job of promulgating the idea of safety, far and wide.

As a result of this effort, which is being continued, every piece of machinery going into a factory today, and every method of production developed, takes into consideration the safety of workers concerned, and reduces to a minimum the possibilities of accident.

This aspect of safety work was started before the principle of conformity was understood. It is a purely engineering project, containing no element of psychology. But it is probably responsible for saving more lives than any other aspect of safety work so far undertaken.

The Mass Appeal Movement

ALMOST concurrent with the development of this safety engineering, there developed another aspect of the safety movement. This was an attempt to persuade workers to conform to the safety principle.

No mathematical analyses of individual accident frequencies were made. But workers were urged by various means to act safely; to wear their goggles; to wear safety shoes; not to leave materials about that others might fall over, etc. Meetings were held in which hazards were pointed out, and means of avoiding accidents discussed, safety medals and bonuses were awarded, signs were prominently placed around factories, and every other possible form of mass appeal used.

In some plants attempts were made to get accident free periods for a month, three months or a year, or perhaps more, by means of mass appeal.

This is the stage in which the safety movement is now. It seems highly probable that most of this mass appeal effort is wasted effort, and in vain. For, in general terms, it seems that the only persons who listen to this appeal are the ones who would not have accidents anyway.

Every study that has been made of accident records, even in the companies with the best safety departments, and the lowest accident frequencies, shows the presence

of persons who do not conform to the safety principle, and go on having accidents year after year, in spite of all the appeals that are made to them.

Unless and until the safety movement learns to understand this aspect of safety work—that is the presence of non-conformists, and how to deal with them—it cannot reduce accidents to a minimum in this country.

We have called workers who have more than their share of accidents non-conformists to the safety principle. They have been called various names. The English writers and W. V. Bingham call them, "accident prone". This is an undesirable name because it carries with it the implication of having some incurable disease. They have also been called repeaters or multiple accident men.

The name does not matter very much. It is more important to recognize their presence among any group of workers, and set about to find the reasons why they do not conform to the safety principle, and to get them to do so.

The Theory of Conformity

ONE of the reasons why the safety movement has not accepted the theory of non-conformity, as outlined above, is that their basic assumption is that everyone is equally capable of working without accidents. The psychological theory of conformity or non-conformity makes no such assumption, but believes that there are individual differences in ability to work safely, as there are in ability to add up figures, or play the piano.

The safety movement seems to base its belief on the equality of ability to avoid accidents, but an unequal willingness to use this ability, on the fact that some plants have been able to go long periods without accidents. They say, "If this is so, it proves that there are no accident prone people, for what happens to them during an accident free period?"

The fact is that most accidents are tiny ones, of not much consequence to the person injured, and not much expense to the company. The list of accidents, shown as Case I (p. 47) that happened to one man shows this plainly.

Men Who Go On Having Accidents

NONE of these accidents are serious, and in the accident records of the company only one in fact appears as an accident. For it is the rule in keeping accident records that only lost time accidents count. A lost time accident is one which causes the man to be away from his work more time than the remainder of the day or shift in which the accident occurs.

Most times this man only had to leave his work to go to the plant dispensary for dressings and redressings. So that even if these accidents had happened during an accident free campaign, they would not spoil the record, by showing on it.

But it has been found that such men as this, who are non-conformists to the

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safety principle, having a large number of small accidents, are the ones who have the big accidents, causing serious injury or death to themselves or fellow workers.

To concentrate successfully on an accident free campaign for a long period, by mass appeal, does not really deal with non-conformists at all. They are still there, having small accidents, but no lost time ones. Everyone is concentrating on safety,

CASE 1

DATE	ACCIDENT	NUMBER OF VISITS TO DISPENSARY FOR REDRESSINGS	CLASS OF WORK
1/23/30	Right first finger bruised in machine	5	Screw machine
12/2/29	Cut right first finger when drill slipped, tube hit finger on machine	4	Screw machine
10/24/29	Cut right little finger on sharp part of terminal when threading on machine	3	Punch press
10/10/29	Cut right first finger on sharp part of casing when cleaning on machine	2	
7/1/29	Lacerated right thumb when milling out casing. Thumb slipped and hit machine	4	Milling machine
4/16/29	Ran copper or brass sliver in left ring finger when threading units on machine	2	
4/13/29	Lacerated left third finger with sharp part on unit when stripping	1	Assembler
1/25/29	Lacerated left third finger with sharp part of tube when assembling	2	Assembler
1/28/29	Lacerated right first finger with sharp tool on machine	4	Assembler
12/28/28	Lacerated right thumb with sharp burr on unit	2	Assembler
11/21/28	Lacerated left first finger with sharp part on unit in machine	3	Assembler
11/8/28	Sprained back by lifting box	2	Assembler
10/16/28	Lacerated left thumb with sharp burr on unit working on machine	2	Punch press
7/11/28	Lacerated right thumb with sharp tool in machine caused by hitting thumb on tool	2	Screw machine
3/28/28	Particle in left eye—dust from machine	1	Assembler
1/13/28	Drill slipped and hit right thumb causing laceration	4	Assembler
Total visits for redressings.....		43	

no one knows how much production is slowed, and no one knows when one of the non-conformists in the plant is going to burst out with a fatal accident.

When in such a campaign a man is seriously injured, it is quite a common practice to bring him back into the plant, if necessary on a stretcher, pay him wages, and give him some simple job to do, such as keeping time, or sorting screws, or perhaps counting the fly specks on the window.

These campaigns usually end up by everybody getting sick and tired of the safety preaching and cheating, or management decides it wants to get a little work done, or some non-conformist breaks out and kills himself, and generally a few others.

They do not prove the absence of accident repeaters, for it is possible to find them having their accidents, as usual, at the beginning, in the middle or at the end of such a mass appeal no accident period.

It would be strange if they were not so found. Every psychologist today knows that there are individual differences in abilities, mechanical ability, clerical ability, intelligence, social adjustment, etc. Every personnel man, though he does not talk

TABLE II

KIND OF ACCIDENT	NUMBER OF LOSS TIME ACCIDENTS	NUMBER OF MINOR ACCIDENTS
Fatal	5	
Loss of hand	2	
Loss of fingers	17	1
Loss of eye	2	
Fracture of thumb	4	
Fracture of hand	2	3
Fracture of finger	11	25
Fracture of leg	1	
Fracture of ankle	3	
Fracture of foot	3	8
Fracture of toes	23	17
Fracture of nose	1	
Fracture of collar bone	1	
Fracture of rib	4	1
Infection	19	27
Injury to eye	14	3345
Cuts and lacerations	30	1931
Exhaustion	32	10470
Stomach trouble	13	8491
Hernia	1	13
Electric shock	1	3
Wounds		17
Burns by molten metal	0	9
Burns by electricity		17
Burns by other causes	4	1279
Missing		1133
Total	251	1927

about individual differences, bases his policies of hiring, transferring, promoting and discharging on the differences in ability of workers. It would be strange indeed, if there were not individual differences in ability to avoid accidents.

Ability vs. Willingness

THE safety movement in general has not recognized this fact, but has assumed equal *ability* among all workers to avoid accidents, and has thought that the differences between workers was in their *willingness* to avoid accidents.

We may study further cases of the lack of recognition of non-conformists to the

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safety principle among workers—that is accident prone people, repeaters, or whatever they may be called, and their small accidents.

TABLE III
SHOWING DISTRIBUTION OF 2041 ACCIDENTS AMONG 442 EMPLOYEES
All accidents, major and minor, included

NUMBER OF ACCIDENTS PER MAN	NUMBER OF MEN IN NO. ACCIDENTS	TOTAL NUMBER OF ACCIDENTS
1	184	184
2	100	200
3	88	264
4	60	240
Total	442	908
442 safe employees had 9.8 accidents (average 1 each)		
5	39	195
6	37	222
7	19	133
8	10	80
9	14	126
10	9	90
11	6	66
12	5	60
13	7	91
14	3	42
15	2	30
16	6	96
17	2	34
18	4	72
19	1	19
20	1	20
21	1	21
22	1	22
23	2	46
24	3	72
25	1	25
26	1	26
27	1	27
28	1	28
29	1	29
30	1	30
31	1	31
32	1	32
33	1	33
34	1	34
35	1	35
36	1	36
37	1	37
	183	1733

183 unsafe employees had 1733 accidents (average 9.5 each)

In Table II we show the accidents for a year in a plant with 6600 employees. It will be seen that there are only 259 lost time accidents, but a total of no less than 19,270 minor accidents, which required attention of a doctor or nurse.

Champion Had 37 Accidents

IT is obvious that you cannot find many repeaters when 6600 workers have only 259 major accidents. A man cannot be expected to be so accident prone that he breaks his leg three times a year. But when the minor accidents are taken into account it is found that on the average each employee had three accidents a year. (The champion had 37).

These were unevenly distributed among employees, and the presence of a proportion of people lacking in ability to avoid accidents was very evident. It was further found that the people with a lot of little accidents were the ones, who were having the serious accidents. So that in order to reduce the 259 lost time accidents it would be necessary to deal with the workers who were having most of the 19,270 small accidents.

Table III shows the distribution of these small accidents among a sample of 625 employees. From this it was estimated that there were some 900 non-conformists or accident repeaters in the plant. This is a typical distribution of accidents in a plant with a good safety record, and is probably representative of the situation existing in most industrial plants in America.

(To be continued in the next issue)

The Measure of a Job in a Company is the Relative or Comparative Importance of the Contribution It Makes to the Success of the Enterprise. This Must Be the Prime Base of Any System of Job Evaluation.

What is A Job Worth?

By J. O. HOPWOOD

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WHAT is the status of a man's job—What is its worth? Is he in an enterprise, or merely selling labor to it? Probably no other question in industrial relations has been more discussed and more confused. A great deal has been of late about "job factoring," and people go about "rate shopping" in the name of "Job Evaluation." The consequences affect dealings, morale, costs and incomes, and are serious. It is time that the validity of some of the claims being made should be challenged by objective analysis.

Job Evaluation in the Last War

THESE comments are prompted by experiences in dealing with the evaluation problem, and contributing to its literature from its inception in industry more than twenty years ago. Government military and civil service organizations and classification boards established job specifications and classifications with graduated rates of pay in various lines of service years before such things attracted any attention in the industrial world. In 1918, in the Emergency Fleet Corporation, Mr. George L. Tirrell, then in the office of Mr. Howard Coonley, who was Vice President in Charge of Administration, directed the preparation of a manual, "Salaries and Titles for Positions in the Emergency Fleet Corporation." This manual graded the positions and graduated the compensation rates accordingly. There were similar manuals in other Government services, but this one was a good model for an industrial corporation.

From the introductory statement of this manual the following remarks are quoted:

"The purpose is to give to administrative officers—a specific guidebook which will enable them to act uniformly in all matters which pertain to salaries and titles.

"The entire plan and operating system are based upon the fundamental idea that duties performed must be the measure of value. Positions, and not persons, are being dealt with; and it is the work being done, and not the person doing it, which determines the appraisal both of salary and title.

"A range of salary, rather than an absolute fixed rate, is provided for each kind of work. In this respect the plan differs from the system of 'prevailing rates' as applied throughout the industrial world to the skilled trades and to unskilled labor. Otherwise, the principle is similar. Experience has shown that the fixation of an absolute rate for a position tends to remove the incentive for the best effort, while the range in salary provides reasonable opportunity for rewarding meritorious service."

Duties Performed Is Measure of Value

THEREIN is the substance of job evaluation and its meaning in administration for a well-balanced organization. "Duties performed must be the measure of value" and administration for well-balanced organization must embrace the principle in a unified plan. This is true for any enterprise, and in our Company work, as well as in my own published discussions to promote the work, this has been the basic idea.

Thus, jobs were evaluated earlier than has been credited by any of the recent writers on the subject. In a book, "Analysis and Classification of Performance," in 1922, I first stated the principle, further developed in later publications (various articles and the manual, "Salaries, Wages and Labor Relations," Ronald, 1937), that scope of functions is the measure of the effects of a job in an organization, and therefore the common basis of appraisal, which is job evaluation in a true sense—that is, scope of duties performed.

Not Market Price

HOWEVER, the word "evaluation" in this connection seems hard for some people to dissociate from the idea of absolute dollars and cents—How much money should we pay the man as an absolute price for his work? Any sort of formula or device to get an answer from a conglomeration of factors, ratings, quotations and allowances for this and that goes by the name "Job Evaluation" and has acceptance. Ideas of paying for what the job is supposed to take out of a man, discomforts, the market "price" and bargaining supersede the thought of objectively analyzing the functions and gauging the coverage of his work in the integrated enterprise—the measure of his job, as the basis of relative productive worth. What is worth?

As to a job, can it be anything else than its value in terms of its relative effect in an enterprise?

Every few years brings its wave of fancies, fads and fallacies in industrial relations. Two decades ago the employment field was invaded by pseudosystems of character analysis. People were reading books and taking courses in judging applicants for employment on features of face, complexion, head, body build, etc. and their selections were called "successful." In a personnel association meeting an employment man said he could tell a machinist by the way he walked into the employment office. Such remarks were common and seriously made. Most of the stuff, of course, was residue from old pseudosciences—phrenology, physiognomy, and what-not in new clothes, always interesting to the credulous like astrology is to many people to-day. Education, even in many college curricula, has not been enlightening in these regards.

That movement has subsided but others have followed and something of the same kind of thinking is popular now in "job factoring" in various attempts at job evaluation. Accordingly, all that is necessary is to take a job apart into so-called "factors," or so consider it, pool the ratings of several people as to how much each factor is worth in points, combine these "values" and you have the worth of the job in points which are convertible into dollars and cents. The "factors" used in various systems, it should be noted, include many diverse items including education, learning time, experience, character traits, special abilities, energy demands—physical and mental, hazard, clothing expense, physical working conditions, public contacts, supply of workers, and almost everything which a job can be said to require, except possibly the kind of breakfast food the encumbent should eat. The whole conglomeration represents confusion of ideas of job evaluation, selection of employees, merit rating and other considerations.

Beware of False Theories

IF WE are going to solve a problem, we must get down to the realities of the case and beware of false theories and confusion. Selecting individuals for jobs is one problem; rating individuals as to their proficiencies in their jobs is another, and evaluating the different jobs as to their coverage in the work of the enterprise is still another. They require different observations.

Selection of individuals for jobs calls for knowledge of aptitudes and abilities required in the jobs and possessed by the individuals, as far as they can be determined, to answer the question, Can they do the work successfully?

Rating individuals as to proficiencies calls for observations of actual performances and attitudes, with respect to the requirements in specific situations to answer the question, How well do they actually do the work, and meet the environmental conditions and associations? It is not a question as to what aptitudes or abilities they may have, but as to how they actually display necessary skills, and otherwise

perform the functions and harmonize with the circumstances or working conditions in the specific situations.

Human functions are activities, mental and physical, not the aptitudes and abilities which may be required for their performance. Jobs consist of specific functions, and they cannot be identified as entities nor evaluated by aptitudes and abilities involved.

What Is a Man's Job?

EVALUATING the different jobs as to their coverage in the work of an enterprise is purely a problem in gauging their functional scope in the enterprise to answer the question, How much does the person with full performance in the job effect or contribute to the work of the enterprise—how much does the job count? What is the scope of the job in the work of the enterprise?

These three questions are basic in industrial relations—

1. Can he do the work? (Selection)
2. How well does he do it? (Employee Rating)
3. How much does it count? (Job Evaluation—taking the job's measure)

They are not parallel questions, and they cannot be answered in the same terms. What, on the whole, does he do in the enterprise in which he is employed—that is a man's job, and as either salary earner or wage earner this is true. Job measurement must be in terms of functional coverage because:

1. A job consists of human functions. It is an organic activity subject to biological laws by which
2. It is a unit of organization—differentiated from and integrated with the other jobs in an enterprise and
3. One job is more effective than another if its functions are broader in scope.

These are basic truths of science which cannot be denied with reason nor violated in a valid job evaluation. Yet many attempts in this field have produced "measuring sticks" with so-called "factors" for such things as honesty, loyalty, effort, working conditions, expenses, public contacts, scarcity of workers, etc., entirely ignoring fundamental differences between relevant and irrelevant considerations. What is worse, many of these schemes have been sold to industrial managers by professional consultants or other exponents, and the names of companies in which a plan is used are generally given more weight in the publicity than standards of validity.

One pretext made in a trade association committee was that it is necessary to rate jobs in such terms with "point" values to be concrete in labor negotiations, and anything the employee believes to be right about his job is right. Years ago we had hopes of deliverance from such ideas of "management."

The answer to an analytical problem may be used in bargaining, but it is not

obtained by bargaining, and it need not be argued that honesty of purpose is the first requisite of any constructive undertaking. This is compliance with established knowledge and fact finding. It is the method of science and the scientific method can be applied to the solution of any problem. In so far as we can so establish facts, there can be no doubt. They may not be sufficient to complete the solution but they are solid as far as they go.

Further than this, we must rely upon judgment. This is true in any field of engineering or applied science. Here, of course, is room for disagreement but most of the confusion in the field of job evaluation is brought about by ignoring what is already known about human functions and the laws of organization and failure to seek the facts of a situation in these terms.

Is Job Evaluation Scientific

IT HAS been said that there is nothing scientific about job evaluation, and that it may be systematic but must be entirely arbitrary. Therefore, one idea is as sound as another, and you may take whichever one you like best. On the other hand, a college professor says "point systems" are scientific, more so than "grading systems."

A prominent statistical organization has published the statement that "Grading consists simply of arranging jobs in order of increasing importance or difficulty as determined by the judgment of the person or persons charged with the task of classification." ("Studies in Personnel Policy" No. 19, National Industrial Conference Board, p. 7.) Grading, as we know it, is just the reverse. The job is first recognized as a functional entity in an organization as a whole. Then, it is placed among the other jobs in the sequence of functional scope after a thorough analysis of the organization as consisting of all of the jobs in it. Relative importance is revealed by arrangement in this graded order from factual evidence of organization relations and job analysis, in so far as this is conclusive. If facts are insufficient, judgment is necessary, but many placements are positive from direct observation and grading.

When the duties or activities of a number of jobs in any line of work have been itemized sufficiently, comparisons will show similarities and differences as to scope. Comparison between the skilled mechanic and his helper, for example, will show that the mechanic performs a wider range of operations on his own resources in the use of machines and tools. He works with precision and skill acquired by close application for a longer time. He reads instructions and blue prints, making technical interpretations from knowledge acquired by training and experience, and gives directions to his helper. This is factual evidence that his functions are broader than those of his helper. The same kind of comparison can be made as to office jobs—between the clerk and assistant clerk, the stenographer and junior stenographer. These are simple cases and there is no doubt about the differences.

Jobs Can Be Arranged in Sequence

ALL cases are not so simple, but various facts established by a survey will show differences in scope in the same manner, and in any line of work the jobs can be arranged in sequence up to the supervisor. Division and subdivision of the organization shown by working out the organization chart, establishes facts as to the succession in the coverage of administrative positions from the chief executive to the lowest ranking supervisor. We have the basic fact then that a gradation in scope of jobs exists from the chief executive's position down to the simplest routine type of job.

In an organization of large numbers of people we have jobs in all of the gradations which are practically distinguishable, except in some of the higher levels. This also is a basic fact. The gradations can be represented by a scale of grades for the entire range. It follows therefore that since we have jobs in all of the gradations (with some gaps near the top of the scale) and a great deal of factual evidence of differences in functional scope among the jobs, established by a general survey, the jobs can be placed on the graded scale by comparing one with another. Simple comparisons between jobs in the same line of work will establish their sequence on the scale, particularly by the method of paired comparisons. These placements will then serve as reference points from which to establish the locations of others until all are placed. As new jobs are created afterwards, they can be placed with reference to those already placed.

Because an organization is a unity, there is one continuous gradation of its jobs in the division of labor. Therefore, a scale representing this gradation applies to all of its various lines of work. This is another fact, not a theory, and by using the same scale of grades in grading the jobs in the various lines of work, co-ordination is established. Jobs in different lines of work and different departments of work, but of the same scope of functions are thus given equal standing.

Practical Illustration

AS ILLUSTRATED by the following partial lists, the gradation is represented by the jobs which follow in sequence. The jobs represent the grades and serve as a measuring scale for other jobs. Any series of jobs which has been studied and placed in this way represents the measuring scale so that jobs of various types in different departments can be used in applying the scale to other jobs, and it is one gradation scale which applies to all if extended on up to chief executive.

Plant Jobs

9. Chief Electrician
8. Assistant Chief Electrician
7. Chief Switchboard Operator
6. Switchboard Operator
5. Head Auxiliary Operator

Office Jobs

- Accountant
- Cost Analyser
- Senior Clerk
- Bookkeeper
- Clerk A

- | | |
|----------------------------------|--------------------|
| 4. Auxiliary Operator | Inventory Man |
| 3. Auxiliary Operator, 2nd Class | Clerk B |
| 2. Exciterman | Key Punch Operator |
| 1. Electric Cleaner | Assistant Clerk |

Job analysis and organization study of functions and relationships give objective data sufficient to establish these gradations in the particular organization with hardly any question.

Even more remarkable than the statement cited above is the further statement in the same publication, "The more scientific form of evaluation is that which is known as the 'point system.' " There is no one point system and there is very little, if anything, about point systems that reasonably can be claimed as scientific at all. Generally, it is not claimed for them and is misleading to the uninformed to say so. Any system must be judged on its own merits but there is no such thing as a number of factors common to all jobs which can be given numerical or point values which are anything but somebody's assumptions.

Point Systems

THEY comprise no overall objective basis for the unity or co-ordination of evaluations for an organization, such as a scale or classification representing the overall natural gradation in organized division of labor from general management down through departmental management, technical and highly skilled service on down to the simple activities of the lowest jobs. They are applied to jobs as isolated groups. Moreover, many of the so-called factors commonly used can be shown to have no relationship in fact to the scope of the functions which comprise a job in an enterprise. While factors are said to be elements or parts of jobs they are mostly peculiarities or *aspects* of jobs as wholes, often abstract terms like "physical and mental effort," "responsibility" and "working conditions." Nevertheless, we read again, "Formal job evaluation involves the use of a measuring stick composed of certain job characteristics with a definite range of numerical values or points assigned to each." ("Studies in Personnel Policy" No. 25, National Industrial Conference Board, p. 3.)

One system widely publicized as adopted by a trade association for its member companies is said to use four "factors" or variations of them as the essentials for evaluating all jobs—Effort, Responsibility, Skill and Working Conditions.

Responsibility Is Whole Job

EFFORT," literally, either physical or mental, is no criterion of scope of functions. How much effort a man puts into his work may reflect something for his merit rating in his job, but it has no bearing on the scope of the functions which comprise his job. All functions are physical, mental or combinations of them. They may be judged from various aspects of jobs, such as general or technical knowledge re-

quired, which may reflect their scope, but effort is not one of them and none can be measured mathematically.

"Responsibility" is everything for which a person is answerable; a duty or trust. It is the whole job. How can it be a single factor? Responsibilities or duties are itemized in job analysis and constitute the measure of value. Their scope is appraised or evaluated by direct observation with reference to other jobs and from other aspects. Status of responsibility is the end result in evaluation, not just a factor.

"Skill"—Some of the items often included under this, as well as other headings, differ from both dictionary and psychological definitions which confuse their meaning. Skill involves habit formation through practice and is one of the aspects of a job which does reflect functional scope if the activities are manipulative in nature or can be standardized. The more complex the activity the greater is the skill in mastering it and the longer is the time required. However, skill does not cover the whole range of job activities, especially in the higher positions—the varied observations, judgments, determinations, designs, appeals, etc., which are discretionary in character.

As a factor, it would reflect little as to functional scope of jobs of this character. Aspects which reflect scope of functions thus vary with jobs of different character and something other than weighing and rating factors is necessary for co-ordination in evaluating it in an organization.

"Working Conditions" constitute environment, not job functions. Certain functions are required because of working conditions but they cast little light on the functional scope of a job. Essentially the same working conditions may prevail for a number of closely associated jobs, such as those of laborers and highly skilled mechanics in the same location or different clerical positions in the same office but the job functions are widely different in scope. The idea in rating working conditions as a job factor is associated with paying for discomfort, strain, hazard, etc., but this does not take a job's measure. Working conditions are a factor in selection of people for jobs, not job evaluation.

Weighing of Factors

IT is stated further in the publication referred to that a weighing of these factors in one plant might be 40-20-20-20, while in another 60-20-15-5. How could two jobs in the same organization and consisting of essentially the same functions measure differently because of difference in location? How could any such system be claimed as scientific? On the contrary, it is most arbitrary. The factors are largely arbitrary, their weighing is entirely arbitrary, their rating in a job is entirely arbitrary and the claim which has been made that greater numbers, either of such factors or ratings, means greater accuracy does not bring the result any closer to the truth as to a job's measure because they are on the wrong track.

Point System in a Bank

ANOTHER plan, as described in a university publication ("Salary Determination," Riegel, University of Michigan Press, p. 114-119) as used in a large metropolitan bank, values positions with reference to five bases of comparison—Mental Effort, Skill, Physical Effort, Responsibility and Working Conditions. These factors are essentially the same as those stated above. Fourteen positions are named as key positions. For each of these the average existing salary was ascertained when establishing the plan. Collaborators arranged the positions in ranking order for each factor and distributed the average salary for each key position among the five valuation factors according to the estimated importance of the respective factors. Thus the following tabulations are explained:

	<i>Machine Bookkeeper</i>	<i>Ediphone Operator</i>
Mental Effort	\$17	\$25
Skill.....	27	32
Physical Effort.....	17	16
Responsibility	25	21
Working Conditions.....	11	7
(Average Salary).....	\$97	\$101

Comparison was made for each factor as to the ranking order of the key positions and the ranking order of their salary allotments. Three positions did not show conformity and they were eliminated from the list. The remaining eleven were used to frame five scales, one for each factor, for rating other positions by comparison.

It is noted that each point in the rating is given the value of one dollar and the scales are derived from prevailing values (assumed to be market values) when the plan is established. However, if economic conditions change, the point ratings stand but the point value is changed. Thus, it is said that the point rating of positions expresses their relative difficulty and importance, whereas the value per point reflects current economic conditions in the particular market.

Exact Values Held Absurd

THE claim that this point rating of positions expresses their relative difficulty and importance is certainly vulnerable. The irrelevant character of some factors used in taking a job's measure is pointed out above. By the ratings shown, "Physical Effort," whatever that may mean, is worth exactly \$17 for a Machine Bookkeeper and \$16 for an Ediphone Operator and these jobs are valued, each as a whole, at exactly \$97 and \$101 respectively. Other jobs are similarly valued. Such exact values in human performance by any system would be absurd.

They were obsolete in computing school averages twenty-five years ago, and these things so exactly valued in terms of money are only abstractions not specifically definable nor observable and certainly not subject to commercial exchange and

valuation by the law of supply and demand as commodities bought and sold. Dollar values for them cannot be substantiated because they do not exist objectively.

Even granting that job ratings on such a set of factors may tend to keep some rates of pay consistent on that basis, is the basis sound? Are the factors valid considerations by which to apportion returns to participants in a productive enterprise? Do they take a job's measure?

Guessing the Differences

DOES a vice president in charge apply more mental effort, more skill, more physical effort, and have different working conditions than a chief engineer or department head under him? How could you show any difference between the two jobs as to these requirements and rate them accordingly? It cannot be done. Where is the objective difference then? It is in the jurisdiction of the jobs. The vice president in charge covers not only control of the operations under the chief engineer but several other departments or subdivisions also. His functions have broader scope and this means greater total responsibility.

As between these two jobs you could itemize their chief functions and rate them in points and show the one greater than the other on this basis, but this is only a way of guessing the difference. There is no exact measure, of course, but when we have a number of positions as heads of divisions and subdivisions in an organization their relative coverage can be observed and indicated as with other types of jobs.

Certainly physical requirements and working conditions are not criteria of accomplishment of people in various jobs. A man necessarily does not make a greater achievement because he is required to move heavy material than some one else who has lighter physical work to do. Similarly, one who works in the heat of a boiler room makes no greater achievement on that account than some one else who has cooler working conditions. We should make the conditions satisfactory, select persons adapted to them and pay in proportion to participation in productive accomplishment.

Attempts to evaluate a job with reference to its so-called market value, whatever that is assumed to be—the average pay for similar work, a dictated union rate or what-not—are merely pricing devices; they do not take the job's measure. Price is one thing and the scope of a man's job is something else. It is sometimes argued that the bigger the job the greater is the scarcity of people who are able to fill it, but this is not always true and is certainly no criterion in taking a job's measure.

We have seen riveters during war time paid a hundred dollars a week, and during business depression former competent executives glad to take almost any lower position because of no market for their services. A man's status in an enterprise is not based on an active market for his services outside but upon the coverage of his job inside. *The problem of real value basically is concerned with the status of the individual in organized production through duties performed* and this is true of the individual in any

job, high or low, and in any kind of production of commodities or services. Job evaluation should make this determination.

Must Understand Organization

ORGANIZED enterprise is the agency of production in economic life but organization as a subject of study is little pursued in the field of economics, or in the field of industrial management. A mere elementary knowledge of the subject entails concepts of differentiation and integration—coordination, unity; the difference between structure and function; their inseparable character as different aspects of organization; line and staff relationships; the nature of development as a process of organization and as a stage in organization; the difference between environment and adaptations required by it.

Ignorance of these simple concepts is widespread. Vague ideas of character traits, working conditions, social economic status and what-not are badly confused with vagaries of structure and function. Classes and groups in industry and the community—capital, labor, employer, employee, office and plant are not entities in production but are widely taken for granted as such in both industry and the community at large. The only entities in production are enterprises, and the persons in them participating by investment of capital, and by performing the various integrated human functions in the work. This and only this is organization in production—coordination, unity, cooperative undertaking.

Sequence of Jobs Relative

THE question—What does a man do and how much does it count, can be answered only in these terms—What is his job in the particular enterprise in which he works and, this being a functional entity in the larger entity—the enterprise, What is its relative scope in the functions of the enterprise? Plausible answers to these two questions must be sought in any serious attempt to identify and ascertain the relative values of the various jobs in any organization, and this and only this is job evaluation pertaining to relative effectiveness. This is taking the job's measure—by job analysis—and gauging the status of the job in the functional gradation of the jobs in the enterprise.

Functions are observable, one job covers a wider field than another. As they compare in this respect and are placed in the sequence which is established by the process of organization in the enterprise, we take their measure. To co-ordinate evaluations it is necessary to relate placements to other placements in the natural sequence of jobs established by the process of organization. The highest and lowest jobs fix the limits of the range and the number of discernible steps between. Original placements are established by an analytical survey. Afterwards, they serve as reference points or key positions for subsequent placements. This is a measuring scale with not only a number of gradations, but definitions in having the grades

represented by jobs which follow in their sequence as determined by objective analysis. Placement in such a sequence is not subject to mathematical determination as it is relative, but it is none the less real. As it applies to rates of compensation, it is a co-ordinating process, not a price fixing device.

Methods have been classified as grading systems, ranking systems, classification systems and point rating systems. This classification is faulty for lack of clear distinction. What are the differences between grading, ranking and classification? Even in point rating systems a sequence is established which is a ranking order. The real question is validity.

Points Used where Facts Inconclusive

IT MAY not be incompatible with grading jobs, as stated above, to make comparisons by point ratings if it is not otherwise obvious that one job has broader functions than another. This is true if applied to common aspects which pertain to scope of functions. It may be an aid to judgment in grading when factual evidence is not conclusive. The same aspects, however, do not pertain to all jobs. Jobs which are close together on the scale of grades can be judged from the same aspects, but lower jobs must be rated from different aspects than higher jobs. Rating by factors, therefore, does not co-ordinate the entire gradation. It lacks unity. The full scale of functions must be covered otherwise.

The so-called experienced job analyst who makes such arbitrary distinctions is like the "experienced" employment interviewer with claims to superabilities in selecting the right man for the job. Unless he is versed in the specialized knowledge and techniques of the subject, any one's judgments are largely chance shots. Every plan is declared a success by its proponents, but by what kind of standards? Taking the measure of a job requires factual evidence in two fields of knowledge, organization and human behavior. Graduation in engineering, economics, accounting, law, medicine, or other professional field does not necessarily grant a license to practice in either selecting the right people for jobs or in gauging the jobs themselves. This is a specialized field and regardless of who does the job, whether it be an individual, a committee, or a labor union the requirements of validity are the same, as in any other special undertaking.

Avoid Setting up Conflicting Groups

ONE of the outstanding tendencies in dealing with industrial relations problems in all of its fields is to disregard the principle of unity in organization. Organization means unity. We give lip service to vague ideas of cooperation, equitable wages and fair dealing but rarely carry the idea through. In fact, some of the laws and administrative plans declared to have these objectives actually tend to break down an organization into departmental and craft factions, self-conscious conflicting groups and classes. This is true of the whole theory of class structure in both

industry and the community at large. The individual is the basic unit in an organization, not a category in which he may be classed or class himself.

Most of the job evaluation plans focus on plant groups or office groups. They ignore the organization as a unity comprehending every job holder with his job functions which calls for a consistent single plan of administration for everybody, conceived by conference throughout and directed from the "top" to carry out a declared policy.

Production jobs, non-production jobs, supervisory, non-supervisory, are familiar categories and such classifications have their purposes but diversity in dealing is not a legitimate purpose. Good management means good organization and this means unity—the integration of jobs and consistency in dealing from the top down, not *breaking down* by factional groupings. It means taking the measure of every job in the work gradation by observing its contents and connections and gauging this coverage with reference to the other jobs as functional units in the organization. They are all productive in this real sense, and equitable distribution of returns means corresponding apportionment. Job evaluation is a means to this end, not a price fixing device. The income of an enterprise changes, but this does not affect its equitable distribution nor the productive status of a job.

Supervising Jobs Should Be Included

SUPERVISORY jobs, whether the term refers strictly to supervision of standard practice or to jobs in the functions of management, are quite generally set apart as though not subject to examination like rank and file jobs. These jobs consist of functions like all other jobs and likewise have their places in the work gradation within an enterprise. Supervision is more than a single function. Each job has a content subject to analysis and its coverage is comparable with other coverages in the work gradation. This cannot be gauged for all jobs by a single set of factors, as already explained. Different levels and types of work must be viewed from different angles of observation. The answer to a single question is often sufficient to show that one job is broader than another, and comparisons with several other placements in an established series are usually conclusive. It is a matter of assigning the job to its proper place in the series established by the process of organization. Supervisors are job holders like all other workers in the enterprise, not a separate group or class to be dealt with separately—unity means one policy and one plan of evaluation and administration for all.

Equitable wages is said to be the object of most job evaluation plans, but they frequently fail to recognize functional unity as the basis of consistency of treatment throughout the organization, and functional scope as the measure of participation in work and in the distribution of returns. What else could be equitable than to identify individuals with their work and distribute returns with relation to its effects.

Market Rate Does Not Really Exist

THE so-called market rate is the traditional basis of wages but no such thing in a real sense exists in modern industry, except within wide limits or under the unstable conditions of active turnover, which are inefficient and costly. Average rates and arbitrarily dictated rates, of course, do exist, but they are not clear cut market rates determined by supply and demand in an open active market in a broad field. Anyhow, such rates bear no essential relationship to *productive participation* in work nor to *availability* for payment from the income of an enterprise. Equitable participation in income from productive enterprise must be based on these two things. It is, "Enjoyment by every man of benefits commensurate with those which his own work adds to the wealth of civilization," J. D. Rockefeller, Jr.

Administrative Rates Mostly Used

REGARDLESS of price theories, salaries and wages, by and large, vary with income from which they are paid. Statistical data establish the fact that, on the whole, small income can pay and does pay smaller salaries and wages than large income. Salaries and wages actually are more than just a market price for services—in a stable enterprise they are at least some measure of participation in the returns from its productive service. It is usual to start low and advance by growing in and with an enterprise. Therefore, comparisons between different concerns show wide variations in rates of pay. Rates to a large degree have changed from a competitive character to an administrative character, and one is incompatible with the other as indicated in the table following:

INCOMPATIBILITY of	
Market Rates (a Price)	Administration Rates (a Share)
Ignore organization relations—job status	Conform to organization relations—job status
No plan of distribution	Follow a plan of distribution
No relation to production	Relate to income from production <i>High</i> when income is high <i>Low</i> when income is low
Promiscuous	Relate to Individual and Group Competency
Inequitable	Equitable

Taking the job's measure in terms of relative functional coverage is evaluation as to status in the organization of production. It is necessary to a proper recognition of the status of the individual and is essential for co-ordinating rates of compensation for equitable distribution of returns.

A job is the functions of a person at work, not at a particular instant but through a considerable period of time. In some instances, certain activities recur only once a month, several months or a year. In any case, performance up to standard in various respects involving sustained attitudes must be developed and maintained through a length of time to be thoroughly effective and reliable. For this reason, length of service is justly a consideration in appraising a person's performance and granting pay increases, service benefits and privileges.

Pay Structure not Job Evaluation

IN A stable organization a person's service is therefore not a standard commodity to be bought ready made in the labor market and paid for at a fixed price. An *internal* pay structure is necessary on an all inclusive basis. Human beings cannot be organized to work well together without it. It must co-ordinate returns with functions performed—co-ordinate rates of pay with job status and with income from production. A sound economic structure must be built upon what people create with recompense for what they do and how much it counts—a fair return which everybody wants and good business requires. This is essentially a process in organization. It means taking the job's measure, and giving to the job its proper place in the pay structure with latitude for recognition of the individual's proficiency in the job.

A pay structure is distinctly different from a true plan of job evaluation. It does not take the job's measure. It is a subsequent development although it depends upon taking the job's measure in order to co-ordinate base rates of compensation with functional status. The two things should not be confused, and whether or not it is justifiable to pay premiums for certain working conditions such as overtime, night work, hazard, monotony, etc., is a question of extra remuneration not pertaining to the job's measure. Moreover, taking the job's measure is necessary for considerations other than pay determination. It pertains to job identification, recognition of individual status and knowledge of the organization throughout work levels, distribution of responsibility, requirements of general ability, etc.

A Large Industrial Company Provides Complete Free Medical Care to All Its Employees and Their Families. The Overall Cost Would Seem to be About Two Cents an Hour per Employee.

Medical Care *for* Employees

Abstract of A Report
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IN RECENT years there have been developed different schemes for providing medical care to groups of people, either on a prepayment basis, with weekly or monthly payments, or part prepayment, and part to be paid at the time of or after illness.

These plans all aim at providing groups of people with medical service at a lesser expense than individual service costs, presumably without making the doctors suffer loss of income. And of course the prepayment feature avoids the problem of paying medical bills right after illness, when earning capacity may be reduced.

Presumably these plans are the forerunners of some national scheme of health insurance, paid for out of social security taxes.

Recently several of these plans have been studied thoroughly, and we give the main features of two plans, which are of an industrial type.

Complete Care of Workers and their Families

PLAN E provides complete coverage of service. The widest possible range of medical care is included, as the following tabulation shows (See Also Table IV, P. 72):

1. Physicians' care at clinic, home, or hospital, including every kind of specialists' services.
2. Dental care, with the sole exception of dentures and gold work.
3. All diagnostic laboratory services.
4. Diagnostic and all types of therapeutic x-ray services.
5. Radium treatment.

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6. Physical therapy services.
7. Supply of all drugs prescribed by the physicians.
8. Hospitalization without any restrictions as to duration or type of illness.
9. Ambulance service.
10. House calls without charge.

In scope, type, amount, and duration of services the program is nearly ideal. The people who are served by the plan represent about 40 per cent of the total population of the area involved. They are families whose breadwinners are employees of a big industrial corporation. The program in its entirety is financed by the company; neither the employees nor their dependents contribute to the expenditures.

The analysis of such an all-inclusive program, operated without any restrictions, is primarily useful in disclosing the actual costs of providing a group of people with complete medical care under a system of group practice. Furthermore, the findings may serve as a yardstick for conclusions drawn from the operation of limited

TABLE I
TOTAL AVERAGE COSTS OF TWO MEDICAL CARE PROGRAMS*
(Excluding depreciation)

PLAN	SCOPE OF SERVICE	TOTAL AVERAGE COSTS PER PERSON AND YEAR EXCLUDING DEPRECIATION	AVERAGE NUMBER OF PERSONS ELIGIBLE FOR SERVICE
B	Partial coverage. Most of the fundamental diagnostic and therapeutic services, subject to certain restrictions. Arrangement for supply of drugs at extra charges.	\$11.35	11,000
E	Complete coverage subject to no restrictions.	\$23.24	51,000

* Include *all* expenses incurred by the plans, except provision for depreciation, regardless of how the patients paid for them.

programs. Finally, the experience with a program offering free and unrestricted access to all types of medical care may reveal important facts concerning demand for medical care and its bearing on costs.

This program serves a population of 51,000, being 19,000 employees of the company, each with an average of 1.7 dependents. The people using the services of this plan belong to families where the pay envelopes of most of the breadwinners average \$1200 a year.

All employees are required to take a medical examination on being hired by the company. But when their families are admitted to this plan no medical examination is required of them.

Skilled Workers Set Up Plan

PLAN B takes care of 90% of the skilled workers and their families in the manufacturing department of a big plant. This is not supported by the company, but is a voluntary cooperative plan of these employees.

Average number of persons eligible for service under this plan is 11,000. The average family earnings are \$1900 a year.

Following is a list of the services provided under the plan. It will be seen that they are not so full as those under plan E (See Also Table IV, page 72).

1. Physicians' care at the clinic, home, and hospital by both general practitioners and certain specialists.
2. Clinical laboratory services.
3. Diagnostic x-ray services.
4. Physical therapy services.
5. Supply of anesthetics.
6. Dressings and material needed for laboratory tests.
7. Hospitalization subject to certain restrictions.
8. Bedside nursing at the home of the patients.

Table I shows the average costs under these two plans.

TABLE II
AVERAGE COSTS OF MEDICAL SERVICE, EXCLUDING HOSPITALIZATION, DRUGS, AND DEPRECIATION, IN MEDICAL CARE PROGRAMS
WITH AVERAGE NUMBER OF ANNUAL ATTENDANCES AT CLINIC AND HOME

PLAN	AVERAGE COSTS PER ELIGIBLE PERSON AND YEAR OF MEDICAL SERVICE EXCL. HOSPITALIZATION, DRUGS, AND DEPRECIATION	ATTENDANCES AT CLINIC PER ELIGIBLE PERSON PER YEAR	HOME VISITS PER ELIGIBLE PERSON PER YEAR
B	8.40	4	8
E	11.00-12.30*	4	-

* Estimated.

Costs of Other Plans

THESE costs may be compared with the following, taken from p. 129, "Health Insurance", by Louis Reed, Harper & Bros., 1937.

(1) At Fort Benning, Ga.—an army post—complete medical care was provided to a representative family population at a cost of \$26.43 per capita (1930).

(2) The medical service of the Endicott Johnson Company furnished complete medical care to 15,000 workers and their families at a cost of \$22.76 per person (1928).

(3) In Roanoke Rapids, N. C., a number of companies jointly maintain what is in effect a community medical service. The cost (1930) was \$18.89 per capita of the population.

(4) The Homestake Mining Company furnished medical services to its employees and their families at a cost of \$11.64 per capita (1930). The service was not as complete as was given by other units.

Amount of Service Rendered

How much actual medical service was provided under these two plans, and what were the details of costs? Table II gives this information, without including hospitalization costs.

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Though Plan E made no restrictions on the type of service available at clinics, where as Plan B did, yet the number of visits to clinics was the same in both cases.

Plan E made no charge for home visits anywhere, and showed an average of 0.7 visits, while Plan B, limiting visits to within seven miles had 1.8 visits.

Periodic Physical Examinations Help

PLAN B, is in a singular position to benefit from a well-developed periodic physical examination system, carried out apart from the medical care program. The industrial company, from which plan B draws its members, has for many years conducted and rigidly enforced periodic physical examinations of all employees. The schedule calls for general examinations of the age groups 20 to 30 every three years, 30 to 40 every two years, 40 to 50 every one and a half years, 50 to 60 every year, over 60 every six months. In addition, all workers exposed to dust, fumes, or poison are examined every six months.

TABLE III
GENERAL HOSPITAL CARE

	PLAN B RESTRICTION AS TO AMOUNT OF BILL	PLAN E WITHOUT RESTRICTIONS
Average expense per eligible person per year	\$.75	\$.75
Frequency of general hospital care per eligible person per year	1.8	1.8
Average number of hospital days per eligible person per year	0.6	1.3
Average number of hospital days per hospitalized case	5	13
Average expense per hospitalized case	\$24.20	\$74
Average expense per hospital day	\$4.03	\$5.50

The volume of this preventive service does not appear in the actual case load of the clinic operated by plan B. However, there is every reason to assume that these system of periodic health examinations, as practiced at the plant in question, has already relieved the prepayment plan of many avoidable expenditures, particularly for protracted illness. In the year 1938 the frequency of sickness (from the first day of absence) was 0.46 per employee and the number of days lost due to sickness averaged 7 per employee and 15.1 per case of sickness.

Hospital Care

HOSPITAL care constitutes a big expense item in every adequate medical care program. Hospitalization is fully covered under Plan E, and conditionally under Plan B. Plan E spent \$7.55 per year and Plan B \$2.90 (See Table III). Plan E recorded a hospitalization frequency of more than 10 per cent. The ratios of one in ten eligible persons (plan E) and one in eight to nine eligible persons (plan B) respectively, demonstrate that general hospital care has been extended to a large proportion of the groups reached by these programs.

The average number of hospital days per eligible person was 0.6 in plan. This performance was considerably exceeded by plan E with a rate of 1.4 days. The difference is due to two circumstances. In plan B certain regulations have been established to avoid bills for protracted hospital care. Plan E has no such regulations and, in addition, took care of internal diseases comparatively often, while plan B hospitalized primarily patients with surgical and obstetrical conditions. In fact, the average found for plan E, nearly one and a half days of general hospital care per eligible person per year, is higher than that observed of the population in big urban centers such as New York City.

Average Length of Hospital Stay

FINALLY, it is desirable to know how long on the average the individual patient stayed at a hospital. While plan B paid hospital bills for an average of 5 hospital days per patient, plan E, due to its policy of providing for unrestricted stay at the hospital, bore expenses for an average of 13 days.

Plan B, hospitalizing a high percentage of eligible persons, recorded comparatively few hospital days per individual persons, namely 5. Probably this result was achieved because frequent hospitalization was emphasized. In the long run liberal provision of hospital care for incipient cases pays in reduced average length of hospital stay, and in dollars saved for the program.

The experience of plan E illustrates the basically different situation arising out of unrestricted provision for hospitalization. A relatively small number of patients with chronic illness, needing many months of treatment, noticeably increased the average number of days of care up to 13.

Provision of Drugs

PLAN B required patients to pay for drugs prescribed by physicians, but operates a pharmacy and sells drugs to patients through low cost bulk purchasing, at 20 to 25% below retail prices.

Plan E furnishes to the persons eligible for medical service all drugs free of charge at pharmacies affiliated with the clinics. One may wonder whether the easy access to free drugs has resulted in abuse of this type of service, and how much the operation of pharmacies without cash registers has cost.

The people served by plan E were found to be "medicine conscious", and fond of the drug counter just as in other places with a similar policy. The prescriptions given to the patients for presentation at the pharmacies covered, on the average, three different items. In spite of that, the average costs for filling each prescription were as low as 35 cents, salaries of pharmacists excluded. The total outlay for supplying drugs averaged \$1.76 and \$1.98 per person per year without and with pharmacists' salaries respectively.

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This good result was obtained by wholesale buying of large quantities at big discounts, by preferentially using standard drugs carried in stock, and by avoiding compounds and proprietary remedies. To prevent patients from falling into the drug habit, or from selling their own drugs to outside people, no refills of prescriptions are made; every patient must see his physician before a prescription is filled.

Ample experience has shown the disadvantages inherent in unrestricted supply of drugs, namely, stimulation of demand for a service which may be "desirable" but not "necessary." Without exercising more than scant control, plan E has succeeded in keeping the expenses for drug supply on the remarkably low level of about \$2.00 per person per year. The average costs did not run higher because they were spread among more than 50,000 people, both good and poor risks. It is this point primarily which indicates a basic condition for successful performance of one of the most intricate functions in an all-inclusive medical care program.

The above extract is from a report of an investigation made by Dr. Goldmann for a Joint Committee of the Twentieth Century Fund and the Good Will Fund, and the Medical Administration Service, Inc.

The complete report describes five plans, but only the two of these limited to workers and their families, have been described in this extract.

Copies of the complete report (Price 25¢) may be obtained from Medical Administration Service, Inc., 1790 Broadway, New York, N. Y.

TABLE IV
SCOPE OF SERVICE

TABLE SERVICE	PLAN B	PLAN D
Physicians' care at clinic, home and hospital	Included	Included
Periodic health examination	Under separate program	Included
Maternity services	Included	Included
Total number of physicians on the staff	1	42 full-time 2 part-time
Number of full specialists on the staff	5	21
Dental care	X-ray examinations only	Dentures and gold work excluded
Number of dentists		5 dentists 6 dental hygienists 1 dental intern
Graduate nurses assisting at the clinic (excluding visiting nurses)	2 3 practical nurses	28
Clinical laboratory	Routine diagnostic services included Routine blood tests covered under separate program	All diagnostic services included Routine blood tests at time of entrance examination
X-ray services	Diagnostic services included	Diagnostic services included All types of x-ray treatment and radium treatment included
Physical therapy services	Included	Included
Laboratory technicians	1	4 lab. assistants, 3 bacteriologists on hospital staff
X-ray technicians	1	
Supply of drugs	Excluded Drugs available at contract pharmacy at reduced prices	Included
Anesthetics	Partly incl.	Included
Dressings	Included	Included
Material for lab. service	Included	Included
Number of pharmacists		7
Appliances	Excluded	Excluded
Med. and Surg. appliances	Partly incl.	Included
Eye glasses	No arrangement	Financial aid, if necessary, by affiliated welfare program
Hospitalization	Included, subject to restrictions (see "restrictions")	Included
Ambulance service	Excluded	Included
House calls	Included within 7 miles; small fees for distances beyond 7 miles	Included
Home nursing	Included	Included
Restrictions with regard to kind of illness covered under the prepayment plan	Hospital confinement only if necessary owing to abnormal conditions	None
	Excluded from coverage: Family dependents having a malignant or chronic condition prior to the member joining the plan Hospitalization charges exceeding \$250 per case of sickness Oxygen tents Blood transfusion Physical therapy if not furnished at the clinic X-ray treatment Radium treatment	None

There is Still Probably Quite a Lot of "Bawling Out" of Workers in Industry Today. Though It is Obviously an Undesirable Practice, Human Beings Being What They Are, It is not Likely that It Will be Completely Abolished.

Reprimanding Employees

BY JAMES J. JACKSON

Woodbury, N. J.

NOT so many years ago, the man who handled the workers could rule with an iron hand. It was not uncommon to hear a supervisor shout: "Here you, get that work out by quitting time or you're fired." Any remark from the worker would bring the command, "Go get your time."

In those days the foreman ruled with fear, and the worker trembled when the boss as much as looked at him. Such methods were used in many organizations. But there has been a revolutionary change in the attitude of the supervisor toward his workers. In recent years the employee has been treated with more consideration because of a realization of his importance in the general scheme of our industrial life. The old-time, loud-shouting foreman is on the way out, and he is being replaced by the man who endeavors to understand the worker and to gain his cooperation. The reprimand is reserved for those particular situations and types of men for which it seems to be the necessary and justifiable treatment.

Who, How, When to "Bawl Out"

UNDER the present conditions in industry the executive should know who, how, when, and where to "bawl out." He should be sure just why he is doing it and what the results will be. Furthermore, it should be avoided if possible.

The proper use of the reprimand has become one of the most difficult portions of the repertoire of the executive. He should study all phases of the matter in an effort to become a real artist in its use for those occasions in which he believes it necessary.

Why Does the Worker Seem to Need Bawling Out?

THERE are numerous reasons for indifference or inattention on the part of the worker. Many things can happen that distract his mind from his work. Some events may have such a pronounced effect on him that he is completely "in a fog."

The man who is having trouble of some kind at home will have the problem on his mind while he is at work. It may be a wife's desire for a new car, or what the neighbor's chickens did to his garden. True, these things are not the result of any fault of his supervisor or the concern for which he works, but, whether we like it or not, the fact remains that the worker is not always able to throw off his troubles outside the workplace when the starting whistle blows.

The physical health of the worker has an influence on his ability to direct his thoughts to his work. The man who has a toothache may be rather touchy, and we can hardly blame him. The worker may be worried about some disease that he has or imagines that he has. A common cold may make him feel miserable and prevent him from doing his work as well as he otherwise would.

Financial troubles often drive men to disastrous results. The worker who faces bills as the result of illness in the family, or who cannot afford the expenses of an operation for a loved one, has worries that are serious to him and which he cannot readily throw off. Or perhaps he has become too deeply involved with his installment payments and does not see the way out.

The conditions surrounding the job may give the worker a "grouch." If he got wet on the way to work or had to walk because a snowstorm delayed traffic, he may not be in a good humor about it. Perhaps he has had some bad luck with his work and does not feel that he got results in proportion to the energy expended.

Regardless of whether the cause of the worker's indifference or inattention is home problems, health, financial difficulties, or troubles at work, or some combination of these possible causes, a bawling out usually makes matters worse. He may feel that he has enough troubles, and then the boss comes along and intensifies the condition by criticism. Where he previously had something in the back of his mind that was troubling him somewhat, he now has the supervisor "taking him for a ride" as well. It is usually the case that his work suffered more after he was reprimanded than it did before.

Who Bawls Out?

ALTHOUGH the men who seem to feel that they have to bawl out someone every once in a while may be divided into several classifications, it is often a rather safe conclusion that a feeling of inferiority is the cause of the whole trouble. The bawler out tries to cover up the fact that he is not quite sure of himself by finding fault with the words or activities of others and criticising them in a loud, rough manner. In this way he believes that he can impress the workers with his importance. He seems

to think that he can build up his own ego and thereby convince himself of his own superiority and ability.

The man who is ill or worried about his work, or other matters, does not have complete control over his emotions and is likely to lose his temper at the slightest provocation. When he gets angry, someone will be censured. The supervisor who has stomach trouble, or other physical ailments, does not feel well and cannot face his problems with the same attitude as the man who is enjoying good health. The trucker expressed it when he gave warning throughout the department by saying: "I just saw Sourpuss take some of his 'tummy' pills, so watch your step. Somebody's going to catch hell around here this morning." The worried man seems to feel that he is carrying about all the load that can reasonably be expected of him, and when he sees something else go wrong he just has "to cut loose." With him a minor incident may be "the straw that breaks the camel's back," and he relieves his feelings somewhat by taking it out on the nearest victim.

The supervisor who finds himself bawling out employees or wanting to do so very badly should make a determined effort to analyze the real cause of his trouble. He should consider whether or not he is using a brusque manner of speech when a more friendly attitude would bring better cooperation, whether or not he may be letting some illness or worry influence his attitude toward the workers, whether or not he is letting home troubles affect his feelings at the workplace, or whether or not there may be some other influence that causes his irritation. The attitude of the boss is an important thing from the point of view of the worker, and, in any case, it is part of the job of the supervisor to analyze the situation carefully for the purpose of correcting faults in his own attitude toward his employees.

When not to Bawl Out

THE worst time to reprimand a man is when there is an audience. The man is humiliated before other men, and he has no chance to defend himself or to make explanations. He is humiliated because his pride is hurt, and he has been made the object of criticism in the presence of those whose respect he would like to command.

The executive who is very tired or angry should not allow himself to attempt to reprimand an employee. The man who is in either of these conditions cannot think straight and is not always responsible for his words or actions. He is likely to say things that he would not think of saying when he is rested or has had a chance to "cool off." One very successful executive has always made it a point to avoid talking to employees when he became very tired or angry. In this way he avoided saying anything that he would regret later.

There are still some executives who consider it a personal affront or an "insult to their intelligence" for a worker to make a suggestion to them. In such cases, not only is the idea given no consideration, but the suggestor is bawled out for his pains. The results are that the employers do not get the benefit of the suggestions

when they are good ones and that the men who made them are angry about the reception that they and their ideas received. A further result is that there will be no more suggestions forthcoming. As a matter of fact, the worker who is criticised for offering suggestions will often do things that he knows are wrong rather than point out an error in his instructions.

Don't Bawl Out Honest Workers

IT is an old saying that "Honesty is the best policy," but the worker questions such a statement when he has been censured after voluntarily admitting an error or taking blame that he could have avoided. It is quite true that mistakes on the part of workers are sometimes costly and are often the sources of a great deal of embarrassment to supervisors, but the man who admits an error, or takes blame that he would not have to accept, shows a dependability that is worthy of praise rather than humiliation. The man who is bawled out as a result of his honesty will not be so open and aboveboard the next time he finds that he has done something wrong that cannot be discovered readily.

Unfortunate is the position of the man who has gone ahead with his work without specific instructions and then has been reprimanded for using initiative. "Who told you to do that?" was the question asked of Dick when his boss returned from a conference and found him greasing some gears. As a matter of fact, Dick had gone ahead with the greasing because he thought he was being helpful and he had a real interest in the welfare of his employers. Dick, in telling of the incident, said: "The next time he goes away and leaves me without enough work to keep me busy, I'll find myself a good soft seat and sit there 'til he comes back, no matter if he never comes back."

A Large Item of Cost

UNLESS the particular circumstances justify it, and it is done in the proper manner, a reprimand is resented by most men. If you are not sure that this is true, just think for a moment how you felt the last time a policeman "dragged you over the coals" for some minor and unintentional violation of the traffic regulations, when you were out with a party of friends. It is very likely that you were rather peeved and somewhat humiliated at being bawled out in public.

Although some workers do jobs that require much hard labor, it is not necessarily true that they are "hard-boiled." On the contrary, it seems that the worker is more sensitive than the man higher up, and it is usually the case that the worker has a high degree of self-respect and pride. He is just as proud of his children, garden, and car as the man who has great wealth. He is just as proud of his workmanship as the head of a large organization. He is just as likely to resent any unfavorable remarks about himself and his possessions as is the man who is supposed to be in a more comfortable position.

It is an easy matter to criticise a man and to tell him how stupid and careless he is, but it does not necessarily follow that he will believe it. You did not agree with the officer who scolded you when you unintentionally violated the traffic regulations. The worker does not believe what is said to him when he is bawled out. On the contrary, he thinks worse things of the one who reprimanded him than what the person said about him. He resents the whole matter and thinks and acts accordingly.

Found Guilty without Being Heard

THE man who has been bawled out has been put into the position that he has been found guilty, and any thing that he may say will only make matters worse. If he keeps quiet and does not try to defend himself, he admits his guilt. At least, that is the only interpretation that can be made of the situation. If he tries to defend himself or to make an explanation, he may be quite sure that he will antagonize still more, and, if the scolding has been done publicly, he knows that it will not be good for him to prove himself innocent of the charges. In either case, he loses his pride, and his prestige among his fellows has been injured. He can only hate the one who censured him.

A worker who has been publicly or unjustly criticised loses interest in his work. He spends his time thinking about the injustice of the situation and cursing the fate that requires him to work under such conditions. Consequently, he does less work than he otherwise would, and he is not very particular about how well he does what he has to do. As well as doing some "soldiering," he is inclined to be rather careless as to the quality of his work because he does not now take pride in turning out a good job.

The other employees who know of the incident are inclined to have the same attitude toward their work as the man who was reprimanded. They lose interest in their work and are not so particular as to the amount they do or the quality. They feel that their interests are different from those of their employers. With this feeling abroad in the concern, there cannot be a cooperative spirit among the employees. The inevitable result is that labor is not performed as efficiently, materials and tools are damaged to some extent, and the property of the concern is not cared for so well as it might otherwise be. In brief, costs are increased over those that could be expected had the incident not occurred.

When to Reprimand

A VERY successful executive, who was known among his associates for his ability to obtain cooperation from his employees, was asked if he never bawled out his men. His reply was, "Very seldom, but there are conditions under which it seems to be advisable." This man realized that most men respond to severe criticism with resentment and that afterward they are worth less to their employers than they were before. It is usually found to be the case that the worker's inten-

tions are good but that a lack of knowledge or some misunderstanding has caused him to do something wrong. There are, however, conditions under which a good old-fashioned "dragging over the coals" seems to be the best solution.

It seems that some men need a good bawling out once in a while to keep them on the right path and to make them of value to their employers. A certain number of employees are just naturally lazy and require a severe "prodding" occasionally to keep them "on their toes." The "cocky" man is sometimes a disturbing element and needs "putting in his place" in order that he be of most value to his employers. Also, there is a certain type of worker who responds best to the iron-fisted rule. His skin is so thick that he respects only the supervisor who talks roughly to him. His numbers are decreasing, but there are still some men who respond best to this treatment. As in many other phases of dealing with workers, it is impossible to lay down definite rules in regard to when to reprimand, but this is a matter that can only be decided by the supervisor who has made a study of the individual case. It is one of the finer points of supervision and much of the success of the supervisor depends on his ability to discipline under the proper conditions and at the best time.

Have the Goods on Him

THERE is one rule, however, that should be followed carefully; before attempting to reprimand an employee, the supervisor should make absolutely certain that he "has the goods on him." That is, it should be known that the worker has deliberately done wrong with full knowledge that he has done so. The supervisor should make due allowances for the mental capacity of the individual worker. In any case, it is necessary that the worker cannot deny having had the opportunity to learn the proper method of procedure. He cannot, then, resent a criticism properly administered.

Another safe and very important rule that can be applied to the reprimand is that the temper should always be under control. It is granted, of course, that things sometimes happen that require immediate action. But, it is far better to postpone the reprimand, if possible, until such time as the supervisor is in absolute control of his emotions. The man who is angry can very easily say things that he does not mean and would not say if he were "cooled off." When he has lost his temper, he very likely has lost his reasoning power and cannot recognize facts when they are presented to him. Another reason that the supervisor should keep his temper under control is that by doing so he can dominate the situation in case the worker loses his temper. Furthermore, if the supervisor keeps his emotions under control, he can find a graceful way out when it develops that he was wrong in his accusation!

How to Reprimand

ANY necessary bawling out should not be done publicly. Rather, it should be done where other employees cannot hear what is said, and, if possible, where they cannot see what happens. When it is desirable to straighten a man out in

regard to his attitude or to criticise him for his activities or his work, he should be taken into a private office where there can be no interruption and where the matter can be handled without any of the unnecessary discussions of observers or listeners.

A criticism should, insofar as possible, be made impersonal rather than personal. Thus, a supervisor should find fault with an action or with work rather than with the man. Old Bill would get to the bottom of things without an argument or ill-feeling when he said: "Henry, those rotors have been coming through in pretty good shape, but, if I am correctly informed, the last lot of 340s were not so good." He made it a point to make the discussion about the work rather than the man, and the man could not take personal offence.

Old Bill carried his policy still further by letting the worker make the criticisms himself. Instead of "telling 'em," he asked for opinions in regard to the work. Thus, he appealed to the pride and judgement of the worker. As a rule the worker got "sore at himself" for having to bawl himself out in the presence of the boss, but he did not have to suffer the humiliation of having someone else do it, and he could get over it without resentment.

Private and Impersonal

SOME men, however, do have to be told in no uncertain terms just about what their faults are. Note the "just about." Unless the offence is of such seriousness that the man cannot be kept on the payroll under any circumstances, it is better to leave him a "loophole." It is better to allow him to make an excuse or some kind of an explanation and thereby maintain his self-respect. A loophole will make this possible, but he will feel that he has had a narrow escape. His scare will in most cases be more effective than a direct accusation.

How to reprimand is a problem, but it will bring the best results when it is done privately and in as impersonal a manner as possible. An employee is usually more apt to admit his own errors than to respond well to accusations. A valuable man may be saved to the organization if he is allowed a loophole when he is bawled out.

To Avoid Reprimanding

MOST supervisors dislike the task of bawling out an employee. They realize that it is a difficult problem to solve with satisfactory results to all concerned. Although it is one of the duties of the executive that cannot be eliminated entirely, there are some methods by which the task can be reduced to a large extent and by which a better feeling between employer and employee can be brought about.

Give Full Instructions

ONE method of eliminating much of the criticism of workers is that of telling them 'why' when instructions are given to them. To merely follow orders is more or less objectionable to any normal man, and it is a natural tendency to want

to do the work another way or even not to do it at all. When an explanation is made, however, of the reasons for doing it in a certain way or even why it should be done, much of the objectionable feeling toward following another man's instructions is done away with. The creative instinct replaces the antagonistic attitude of the man who has to follow orders blindly.

Although the outside troubles of the worker are not the concern of the supervisor, numerous cases have been known in which he was able to increase the effectiveness of the worker by letting him "blow off steam." If the worker can be encouraged to tell his troubles, he can often get his mind back on his work. To listen to the troubles of the worker occasionally does not hurt the supervisor, but he can relieve the feelings of the worker and enable him to devote his thoughts to his job.

It is characteristic of practically all human beings that they want to be appreciated, and a word of sincere praise or commendation from a supervisor will bring forth more loyalty and effort on the part of the worker than a thousand "tongue-lashings." As a matter of fact, the man who has received a kind word will (when he has recovered from the shock) make a great effort to deserve a similar expression of appreciation, whether he is a ditch digger or the president of a large corporation.

Summary

IT OFTEN happens that the worker who has some trouble on his mind appears to be in need of a bawling out, and yet such treatment would only intensify his difficulties. The supervisor who has troubles of his own is likely to resort to reprimanding as a cure for the faults of the workers when he should look for the remedy for his own ills. The worker should not be censured when there is an audience, the supervisor is tired or angry, or the worker has had good intentions. The results of bawling out are a large item of costs when extreme care is not taken as to the justice of the matter and how it is handled. Censuring should be done only when there is no other alternative and the supervisor has the goods on the worker. Then he should be reprimanded privately in an impersonal manner and in such a way that he can maintain his self-respect. Much of the criticism of workers can be avoided by a word of explanation, by an effort to understand their troubles, and by the use of a kind word.

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Arbitrators Feel that It is Their Job to Hand Down Decisions that Are Beneficial to the Industry or Company Concerned, without Neglecting the Rights of Employees, and Hate the Very Thought of Making Awards Possibly Injurious to Future Employer-Employee Relationships.

Mediation *and* Arbitration

BY IRWIN STALMASTER

Los Angeles, California

THROUGH the operation of mediation and arbitration in the employer-employee relationship, we witness the use of the processes of democracy in industry, even as they are used in government.

A relationship between the parties may not be satisfactory. But instead of resort to force and violence to obtain a change, they either agree to a compromise of their differences, or select others to settle them, whose integrity and impartiality insures a result which will be acceptable, if not entirely satisfactory.

Mediation Methods

THERE are no fixed rules which can be followed by mediators. They depend to a great extent upon the personal equation. However, briefly summarized, the methods usually followed are:

1. Through conciliation, to aid the parties to compose their differences.
2. By acting as negotiator and holding separate conferences with the parties.
3. By the mediator drawing upon his knowledge of trade agreements and collective bargaining, developing a plan for the settlement of a particular dispute through joint conferences.
4. By the mediator drafting a plan for the settlement of disputes and submitting it simultaneously to the parties, with the recommendation that it be used as a basis of a compromise settlement.
5. If all other methods of mediation and conciliation fail, recommending arbitration by submission of the dispute to a person or persons selected jointly by the disputants or by the board of conciliation.

Note carefully the things which are basic in the work of the mediator. His intervention is to promote calm discussion, draw forth frank explanations, or to suggest possible terms of a settlement.

Four Steps in Mediation

WE DISTINGUISH four steps as a part of the mediation technique:

- I. First, to ascertain the real facts of the situation.
- II. To find the exact positions of the parties in the dispute.
- III. To create an atmosphere conducive to rational discussion.
- IV. To think up new compromises to which both parties can agree.

Some of the very definite things which mediation and conciliation procedure have taught us are:

Disputes settled by the parties themselves while sitting around a conference table leave less bitterness and rancor than when settled by authority or force.

The ultimate goal usually attained by mediation is the establishment of cooperation and good will between management and labor.

When meeting around a table with outside people who are not directly involved, there is a more thorough and more frank discussion, with a greater possibility of clarification of the issues.

The mediator's presence on the scene also makes prominent the fact, apt to be lost sight of in the heat of controversy, that the general public, as well as the parties involved, have an interest in peace.

A mediator's presence provides for the placing of confidence in someone, where the lack of confidence is often responsible for prolonging the dispute.

Parties Will Defend Mediation Result

MEDIATION is a higher form of service in the field of industrial relations than is arbitration. When the parties agree to something because of voluntary compromise, it is their agreement and not one which is imposed upon them from the outside. It is only natural that the parties should want their judgments respected and vindicated. For that reason, they will both defend what they have agreed to in the process of mediation. They will attempt to justify their actions to the utmost, and will find the best arguments why the agreement was not only satisfactory, but also the best which anyone might have obtained out of the negotiations.

When the parties have to bring in an outsider to arbitrate, his award may bring about the same results, but the agreement thus reached is not nearly so desirable. It is often accepted grudgingly by both sides because the result falls short of the things they started out to obtain. They quickly forget that they were both asking for more than they expected, since their original demands were placed sufficiently high to form the basis for concessions and compromise.

The outsider called in to arbitrate has really done what the parties very probably wanted to do, but could not, because each would have had a hard time to sell the results to his own group. The arbitrator is frequently the "whipping-boy" who is called upon to take the blame for a desired result which the parties themselves would have reached, but which they could not safely do without losing face with, or the confidence of, their own people.

Arbitration

THE arbitrator is sometimes able to do his job so well, that he not only arrives at a correct decision, but is also able to educate the parties to a better understanding of the problem and create a more intelligent appraisal of the reasons for the dispute. In these latter respects, he makes a contribution much more important than the decision itself.

A qualified industrial arbitrator engages in one of the most important processes for educating the worker and employer, available in modern procedures for the settlement of industrial disputes. As much as any other influence in recent times, the industrial arbitrator's work will have a great deal to do with the promotion of peace and the acceptance of the democratic way in the disposal of problems arising from industrial disputes.

Types of Problems Met

LET us examine the several types of problems we encounter in the field of industrial arbitration:

1. If mediation has been unsuccessful, the parties may agree to arbitrate in order to avoid a strike, and thus obtain an agreement which will govern their entire future relationship.
2. Failing of adjustment within the plant organization itself, the issue may be submitted to an outsider under an existing contract, in which case arbitration involves the interpretation of application of the terms of the agreement itself.
3. Disputes concerning which there is no clause in the agreement, but which are arbitrable under a general provision which requires arbitration of any dispute, whether or not covered by the agreement.

Let us review each of these in the order mentioned:

1. When Arbitrator Writes Contract

THIS form of arbitration is unusual and, of course, of far reaching importance. The arbitrator is called upon here to write an agreement for the parties. The contract he makes for them will be the same as a written constitution in a political society whereby a similar transfer of governing power from the few to the many is made possible.

Collective bargaining agreements in industry take from the employer the sole right to govern his men and give to them a voice in determining the kind of government which will control their relationship.

Such an agreement gives to the workers immunity from the arbitrary use of power against them by the employer. The correlative of this immunity from arbitrary power, is the immunity of the employer from direct action by the union, whether in the form of strikes or stoppages of work which may be authorized by the union, or of an individual quitting without notice to the employer.

In such cases as these, very often the union and the employer both need to be given an understanding of their relationship which in the past has not occurred to either of them. An intelligent arbitrator will not only write an agreement, but will carefully insert such provisions as will best suit the leadership of the union, the management, the temperament of the parties, the plant organization, and the type of industry involved.

Decision Determined by Relations of Parties

FOR example, where a union and an employer have had a long-standing relationship and have learned to get along reasonably well, the arbitrator is less concerned with creating an elaborate machinery for the handling of problems that arise between them, than he would be in the case where union-employer relationship is comparatively or entirely new. In this respect, the arbitrator becomes a statesman in industry, and seeks to provide a government which is best suited to the purposes and conditions surrounding the relationship.

Sometimes, an employer who has long resented unions, will smart under the new relationship, and whenever he can do so, may violate the spirit, if not the letter, of the new agreement. Where the arbitrator can foresee such a possibility, he must provide minute and detailed provisions in the contract to protect the union's interests,—provisions which at a later stage in the relationship may well be much less elaborately drawn.

Likewise, in the case of a union whose resentment against an employer has become intensified by the belief that notwithstanding an agreement is about to be signed, the employer is still hopeful of ultimately defeating the organization. Often you will find in such cases, the "I'll show you" attitude on the part of union leadership. This may continue long after the agreement has been put into force.

Decision May Determine Whole Future Relations

AN ARBITRATOR who has the ability to sense what is in the air will insert into the agreement provisions which will prevent any unfair use of the newly-won power granted to the union, and thus insure not only the benefits intended for its membership, but also the likelihood of improvement in the future relationship between the parties to the agreement.

In assuming the responsibility thus put upon him by the parties, the arbitrator is called upon to do more than decide a "case." His is not a mere judicial function concerned with determining legal rights in a given controversy. He is here called upon to write the rules themselves under which in the future the parties will undertake to live together in peace and harmony. At such a time as this, if the arbitrator has had a long and varied experience upon which to draw, and has a thorough familiarity with structure and organization of institutions, and a knowledge of the pattern of industrial relations throughout the civilized world,—he may be able to do a fairly good job in satisfactorily moulding the whole future for the parties who have thus entrusted to him their most important rights.

2. Judicial Interpretation of Contract Clause

THE second type of arbitration arises where the shop organization has failed to adjust a complaint arising under a clause in the existing agreement, and an outsider is brought in to dispose of it.

Under this head, a great deal of work may present itself to an arbitrator of a strictly judicial character. That is, the arbitrator is called upon to determine whether any provision of the agreement is applicable to the particular controversy, or whether the rights claimed or actions complained of are governed by any clause in the contract.

In these cases he is arbitrating a strictly justiciable dispute as distinguished from those which, as described elsewhere, may call for a decision in relation-making or is one involving non-justiciable controversies. He is here concerned only with what the parties themselves have agreed upon. He must decide their rights on the basis of the existing agreement, and not on what the parties would do if they had another chance to write the agreement again. What the arbitrator thinks the agreement should be or would be if he had a chance to write it, is entirely beside the point.

In acting, however, as a strictly judicial functionary under the agreement, the arbitrator is possessed of another power which is as great, if not greater than, the limited work he accomplishes as a judge of the legal rights of the parties under the agreement.

Arbitrator Considers Future Working Relations

IN DISCUSSING the facts in these judicial controversies, the arbitrator has an opportunity to be of great service. His reasons for the decision are important. He must state them carefully and painstakingly, so that there can be no room for doubt as to why a particular decision has been made. If his reasons are good, that much better for the award and the likelihood of its acceptance by all of the parties. If his decision is not sound, all the more reason for having it exposed to the critical views of the parties affected by it. Since arbitrators are not infallible, it is well that they, too, should have their work subjected to analysis and review.

It must be remembered that in ordinary disputes, when parties go into court, after the case is decided, they go their own ways without particular after-effects to follow. But in industrial arbitration, the parties must go on living together from day to day. An award must not only dispose of the particular issue, but must also point to the way in which the parties can continue on even better terms in the future in order to enjoy the fruits of their joint endeavor.

3. Arbitrations under a General Clause

WE COME now to the third type of arbitration. In this field, an arbitrator assumes one of the most important roles it is given to anyone to play in the realm of industrial arbitration. For here he finds himself limited and restrained only to the extent that his experience, intelligence and conscience guide him.

Under this heading we find that the parties have determined that no dispute, however important and unforeseen, shall disturb their relationship. So they have provided in their agreement that an arbitrator may hear and determine every dispute whether or not it is specifically mentioned in the agreement as an arbitrable issue.

Where an interpretation of the agreement in force is involved, the function of the arbitrator is a strictly judicial one. But when there is no provision in the agreement covering a particular dispute, and the arbitrator is permitted to act upon it, he is given a quasi-legislative power of far reaching effect and importance.

Legislative Power of Arbitrator

THE answer he gives in such a case, may write a new provision into the agreement, establish new rights, or create new obligations. Often, it may introduce an un contemplated relationship,—one which was not originally provided for in the agreement because it was not thought of at the time, or it may have been purposely avoided because it was too controversial to be settled when the agreement was entered into.

Thus, in such a proceeding, the arbitrator becomes a legislator for the parties to the agreement. He now needs all of the talents of the business man, the production manager, the worker, the foreman, the trade unionist, and above all else, a balance and wisdom which all too few of us are able to bring into such problems.

Arbitrable Cases

HERE are some typical questions with which an arbitrator may be confronted in such circumstances:

Where the agreement does not provide for seniority, shall a man whose services for many years have been entirely satisfactory, be gradually eased out of his employment, not because he has deteriorated in skill, but simply because an operating head or foreman has taken a personal dislike to him?

What are sufficiently extenuating circumstances to justify stoppages of work by employees? According to the provocation or seriousness of the stoppage, what penalties shall be imposed, varying from loss in wages while striking unlawfully, to a complete discharge?

To what extent are an employer's acts and behavior provocative, and should be punished by denial of redress, or by lost production during stoppages?

To what extent should the arbitrator be able to limit the arbitrary use of power by either side? By a proper proportioning of limited powers to both sides, the parties can be made to yield the highest net return in efficiency and wastelessness. This is scientific management. To the extent that the arbitrator is able to work toward this end, he is a scientific manager of industry.

Shall a more efficient method of handling work in the factory be installed? The obvious fact is that this would be a public as well as the employer's gain. Will the workers suffer a reduction in rates of pay or man-hours available? If improved machinery means fewer men used, the union feels its power slipping, the employer's position strengthened; and in addition to that, more men will either become unemployed or more men will be employed at lower incomes.

Is it proper to introduce cost-saving machinery or to restrict its use? Does rejection of its use conflict with public welfare as involving a restriction of output? What provision should be made to compensate for the actual wage loss, and for the loss of an asset of the bargaining power?

Relation of Arbitration to Future Negotiations

THIS may, of course, be dealt with and changed when the agreement comes up for renewal. But is it fair for the arbitrator to render a decision which will not only affect wages and working conditions during the life of the agreement, but will also, to some extent, affect the bargaining power of the parties in making another agreement?

How far should an arbitrator essay in an humble fashion the role of industrial statesman, and how far should he follow the policy of "hands-off," let the contending forces settle for themselves the issues involving balance of power, just as courts often refuse to pass on matters which, they say, belong to the legislature?

In answering such questions as these and in passing upon the issues thus presented, you can readily see to what extent the arbitrator's decision will play a part in the future concepts of the processes of collective bargaining.

Arbitration Contrasted with Court Action

FROM what has been said, it will be seen that the arbitration of industrial disputes is very different from the function of arbitration in purely business or commercial disputes. Our public courts are equipped to deal satisfactorily with the usual conflicts arising from business and commercial transactions.

The parties resort to commercial arbitration as a substitute for the trial in court, either because they want to avoid publicity, or because in a particular community there is an unsatisfactory experience with delays in the courts, or with the farces which sometimes accompany the jury trial.

But in industrial arbitration we find an instrument for the settlement of disputes which is not a substitute for anything else that exists. Ordinary courts are not prepared to deal effectively and intelligently with problems such as these. Industrial arbitration as a procedure for the settlement of controversies arising out of industrial relations, is the only, the principal, and the best method so far provided for resolving conflicts in this field of human relations. If it cannot be successfully invoked when the parties disagree, the only other resort is to the strike or lockout, both of which call for a test of economic power, and a possible resort to force.

From an address delivered before the Hollywood Bar Association, California. Mr. Stalmaster wishes to acknowledge his indebtedness to Messrs. E. W. Moorhouse, James H. Tufts and John R. Steelman, whose experience and writings he has drawn upon, in preparing this paper.

Fifty Per cent of a Group of Machine-tool Workers in New England Said that They Tried to Work Harder, and Thought that Their Fellow Workmen Did, because of Defense Contracts. Most of Them Thought They Were Not Getting as Much Pay as They Should.

Job Attitudes. I Defense Workers

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THE concept of "job satisfaction" is widely recognized as having a key place in the understanding of labor relations in a factory. It has always been known, of course, that some men like their jobs better than others doing exactly the same work; and presumably it has always been known that if too many men reach a certain level of dissatisfaction, trouble for management is in store.

This matter has an added importance at the present time, because it is desirable that a man working on a defense job shall work as hard as he possibly can.

Bases of Job Satisfaction

JOB satisfaction is not defined simply by asking a man whether he likes his job. Workmen, like all other human beings, frequently cannot verbalize what is on their minds. Maybe a man likes some things, dislikes others. The best method seems to be that of asking a number of questions about pay, supervision, plant conditions, promotion, etc., and figuring a satisfaction score in terms of the number of questions answered. It is then possible to pick out a number of men who are distinctly satisfied, a number who are quite dissatisfied, and "sore points" in plant morale (shown by questions which distinguish best between the two groups).

The studies of Watson (1), Houser (2), and others have shown that plants differ with regard to the particular kind and amount of dissatisfaction. Estimates of the percentage of satisfied workers are reported by Watson as running from 90% for teachers, to about 2% for canning factory employees. The evidence of Super (3) is that skilled workers are better satisfied than unskilled, but that professional and business men are more contented than skilled workers. It is to be expected that

more than half the men, in any type of reasonably skilled endeavor, will be fairly well satisfied, otherwise they would have shifted out of the occupation.

Which Job Factors Cause Discontent?

MORE important than trying to estimate total satisfaction is to determine just what features of plant management make workers most discontented. It has been pointed out effectively in this Journal in a report from the Employee Relations Bureau of the National Retail Dry Goods Association (4) that executives are not good judges of what their workers want. Executives ranked pay first and job security second (as what they thought made for worker satisfaction), whereas their employees put "credit for all work done" first, "interesting work" second, pay third and security eighth!

Different studies have reported different degrees of importance for such factors in work satisfaction as pay, supervision, recognition of performance and kind of work. Wages were found most important to skilled workers in one plant, the kind of work performed, in two, and working conditions (including supervision) in a fourth. Roethlisberger and Dickson (5) stress the great importance of first-line supervision in determining worker morale. Super concludes that the nature of the work is most important to his group, with financial factors a close second.

When several careful studies get such different results, we begin to suspect that there is no *general* or universal answer to the question: Why are workers dissatisfied? Instead, we guess that plant conditions, degree of skill required and possibly the general economic state of the country, must be taken into account in answering the question.

Survey Made of Machine-tool Workers

WE HAVE therefore made a study of workers in a single highly skilled trade, working under fairly uniform plant conditions, in a rising phase of the economic cycle. The problem had its inception in speculation as to whether machine-tool workers were putting more effort into their jobs because of the national defense program, which had focused attention upon this usually neglected industry. The presence of a number of communities housing machine-tool plants in the Connecticut Valley, accessible to Dartmouth College, suggested that we actually investigate the problem (6). As the project developed, it became apparent that job satisfaction would be a major factor and defense attitudes must be studied in relation to it.

The subjects were machine-tool workers from two towns in the Connecticut River valley. They were interviewed orally in their homes, the addresses being obtained from city directory lists which indicated type of employment. A type-written list of 34 questions (see Table I) was read to the worker, and his answer was recorded in terms of a 5-point scale as follows: emphatic yes; qualified yes; uncertain;

qualified no; and emphatic no. Interviews were rapid, averaging about eight minutes per man. 123 cases were obtained in one town and 34 in another.

Workers Cooperate

COOPERATION of the workers was good. The interviewer would explain that a "public opinion" study was being made and that his opinions were requested. It was made clear that the study had no connection with management, unions, etc. The men seemed more willing to participate in a college research study than in anything which might have local implications.

To get a first approximation to total satisfaction, the answer values (1 to 5) were added for 19 questions clearly related to job satisfaction. (Where a "no" answer indicated satisfaction, the 5-point scale was reversed.) Thus perfect satisfaction would give a score of 19 and complete dissatisfaction, of 95. The actual range was from 27 to 67 with an average at 43.5 (well on the satisfied side of the middle).

The men were then divided into five approximately equal groups on the basis of this total satisfaction score, and their answers tabulated for all 34 questions by means of Hollerith cards. Statistical comparisons were made chiefly between the extremely satisfied and extremely dissatisfied groups, but these have been checked against the other three groups to verify any statements made in the following pages.

There are some items about which almost everyone was satisfied, and others where considerable discontent was noted. The actual number of dissatisfied answers, however, is not as important as the difference between the two extreme groups. An item may be a source of annoyance only to a few men, but to them it may be important enough to put them in the very dissatisfied category. This probably happens because the man, who is markedly disgruntled about one phase of plant activity, soon develops a distaste for other features of his situation.

Explanation of Answers

IN TABLE I (page 000) the questions are arranged according to the success with which they distinguished well-satisfied from very dissatisfied men. Thus for example, according to answers to the top question, only a small proportion of workers were satisfied with their pay. But, even so the workers who were more generally dissatisfied, with almost everything, beefed much more about this, than the workers who were dissatisfied with only a few matters.

In the next as to whether they liked the kind of work they were doing, most workers said, "Yes." But again the workers who were generally dissatisfied grouched more about the kind of job they were on, than did workers who were generally satisfied. Credit for good work done was third in importance, as shown in this table. (The critical ratio, shown at the right, is a statistical measure showing how certain we can be that the difference between the groups is reliable. 3.00 or

more occurs by chance about once in a thousand times, hence we consider ratios of that size or more highly reliable.)

Dissatisfaction with Pay Predominant Issue

THUS, while this group of workers differs from most of those studied in the past, in that a pay question ranks first, they differ only in a relative sense. It is still strongly apparent that kind of work and recognition of the worker are important factors.

TABLE I
FACTORS INFLUENCING JOB SATISFACTION OF MACHINE TOOL WORKERS
Ranked in order of importance to them

QUESTIONS*	PERCENT SATISFIED		RELIABILITY†
	R.	B.	
9. Do you feel the factory could afford to pay more?	67	73	6.92
8. Do you like the kind of work you do on your job?	87	80	5.86
17. Do you get as much enjoyment from your work as from your spare time?	48	55	5.79
10. Are you told when you are doing a good job?	40	51	4.47
11. Do you feel allowed to offer suggestions as to methods of improvement?	74	80	3.83
15. Do you believe that the bosses and super are always fair to you?	71	72	3.76
7. Do you think you could do better if given a chance at another job?	44	45	3.48
21. When you make a mistake in your work, do you always get a square deal by those deciding the case?	97	73	3.48
20. Do you feel that your present hours are too long?	67	74	3.33
13. Do you feel sure of your job as long as you do good work?	90	87	3.33
8. Do you feel your pay is fair as compared with equally important jobs in the factory?	75	80	3.00
5. How do you like your foreman?	77	85	2.90
26. Would you rather be sure of steady work at your present job than have the responsibility of being a boss?	66	73	2.28
23. Should the mill where you work be fixed up in light, heat, ventilation, etc.?	79	76	2.22
12. Do you think it makes a difference to the company that you're on the job?	77	73	1.99
22. Do you think the management should tell the men more about when the mill is going to close, reopen, or when new orders are coming through?	77	66	1.50
24. Do you feel free to carry your troubles about your work to your boss?	77	90	1.33
16. Do you feel that the orders from your bosses many times disagree with one another?	44	57	1.00
25. Does the boss interfere too much in your work?	94	77	0.59
14. Are you friendly with the men who work alongside of you?	96	98	0.57

* The number indicates the order of questions in the interview.

† Percentage answering this question in a satisfied manner; R, group of 71 men interviewed by Rich; B, 52 men interviewed by Britton. Reliability of interviewers is indicated by rho of 0.91 for the two columns shown.

‡ Reliability of the difference between satisfied and dissatisfied men as defined in the text.

In an attempt to find out more about which kinds of men felt that the company could pay more, answers were tallied separately for the men who answered "yes" to this question, and compared with those answering "no" or "doubtful". Those who felt the company could pay more were also more likely to: dislike their work; feel they could do better on another job; feel that they were not told when doing a good job; enjoy spare time more than work; think hours were too long; complain about physical conditions in the plant; and feel that the boss was not always fair.

In brief, then, the men who were dissatisfied on other points were also the ones who felt that the company could raise wages.

This does not show us which is cause, which effect. It would seem doubtful, however, that wage questions could influence an answer to "Are you told when you are doing a good job?" whereas a person disgruntled about lack of appreciation may well decide to make up for this by demanding higher pay. This suggests that more attention to workers' emotional needs by management might save a considerable amount of money and trouble over wage increases.

Supervision, as Usual, also Important

SUPERVISION is also important to these workers. "Do you believe that the bosses and super are always fair to you" gives quite different results for the satisfied and dissatisfied men (critical ratio 3.76), and "When you make a mistake in your work, do you always get a square deal by those deciding the case" is also important (3.48). Physical plant conditions, on the other hand, are not very significant (2.22), partly because one of the largest in the vicinity had recently been thoroughly modernized; and, having management tell more about plans of operation was relatively unimportant (1.50).

Age (estimated by the interviewer) seems pretty definitely related to satisfaction, more of the very young men being quite discontented. Length of service in the plant, strangely enough, did not follow the age trend. The men with two to ten years service were more dissatisfied than either older or younger men in seniority. There was some reason to suspect that the more skilled men were more satisfied, but it was hard to get any criterion of skill for our study. The size of family, as might be expected, is a factor: men with three or more dependents express more satisfaction than those with smaller families.

Explanation of Pay Dissatisfaction

WITH the exception of the finding on the pay question, our data are in close agreement with those of other investigators. Why does it happen that the financial factor rates higher in this group? Several facts may be important. At the time this study was made (about March 1, 1941), prices were going up and publicity agencies were warning that they would go higher. Newspapers had featured stories about huge sums of money allocated for defense contracts in the machine-tool industry. Further, these men knew that they were among the lowest-paid in the industry—wage rates were said by an official of one company to run about sixty cents an hour for regular work, and to average forty dollars weekly (including over-time) for a fifty-four hour week.

It will be noticed also that the dissatisfied men were more likely to feel that their dollars would not buy as much as two years ago. Thus we feel that the present study does not contradict the generalization of Houser that ego-satisfaction is an

essential element of job morale; but consider the special emphasis upon monetary return to be a (perhaps justified) function of the circumstances.

Defense Attitudes

IN TABLE II (page 95) we have listed the questions relating to national defense. It will be noted that 46% of the men say they have tried to work harder because of the defense program, and 49% think other men have tried to work harder (7). Only 10% objected to the increased hours for defense contracts; this perhaps should be tempered by the thought expressed by several, that "they couldn't work us any longer hours and still get results."

There was a rather significant tendency for satisfied men to feel sure that they had worked harder, and for dissatisfied cases to be doubtful or even to think they had not. This is not surprising, since the individual's relationships to his immedi-

TABLE II
ATTITUDES OF MACHINE-TOOL WORKERS TOWARD THE DEFENSE PROGRAM

	PER CENT YES*	Ratio†
27. Have you tried to work harder because of the National Defense program?	46	2.3
28. Do you think the other men in the factory have tried to work harder?	49	0.87
29. Do you think Communist activities should be suppressed by the government?	78	0
30. Do you object to increased hours due to National Defense?	10	0.88
31. Do you think your dollars go as far as they did two years ago?	34	0
32. Do you feel that your work is as important as that of a soldier?	88	0.63
33. Do you think that government control of industry should be increased under the defense program?	0	0
34. Which of these two things do you think is more important: (1) for the U. S. to try to keep out of war ourselves, or (2) to help England even at the risk of getting into the war? — yes = help England	2	1.58

* Percentage answering yes, based on entire group of 123 men.

† Reliability of the difference between satisfied and dissatisfied men as defined in the text.

ate environment, his job, family life, etc., must inevitably have an influence on his feelings about the nation. National defense will have little appeal to men who do not believe the country has contributed anything to their personal welfare.

Even Dissatisfied Workers Anti-communistic

EIGHTY-THREE per cent of these men thought their own work as important as that of a soldier, with no difference between satisfied and dissatisfied on this point.

In so far as opposition to communism is considered a sign of patriotism, it is interesting to note that 78% favored the government suppressing communist activities, with, strangely enough, the dissatisfied group more vigorously for suppression.

Because of the general concern about Communists at the time this survey was made, we prepared a special tabulation of those approving or objecting to suppression

of the Communists. Only one of the work-satisfaction questions seemed to be related to this item. Men who felt that they were not allowed to offer suggestions were less anti-communist. Perhaps, feeling suppressed themselves, they objected to suppression of others; or, to put it differently, they rejected both company authority and governmental authority.

Relation to Gallup Polls

TWO questions were asked which duplicate polls of the American Institute of Public Opinion. One was: Do you think that government control of industry should be increased under the National Defense program? 50% of our group thought it should be increased; thus they were quite similar to the American public in general, which in January 1941, a short time earlier, had been reported 51% in favor of more control.

There was a slight tendency for dissatisfied men to want more control than satisfied men; this is reasonable, as they no doubt felt that their complaints might receive more attention under government control, and at least they would enjoy seeing the freedom of management restricted as they had been.

The second question related to aid to Britain: Which of these two things do you think is more important: (1) for the U. S. to try to keep out of war ourselves; or (2) to help England even at the risk of getting into war? On this point the machine-tool workers were far more isolationist than the public as a whole; only 27% were willing to help the British if it meant risking war, whereas the corresponding figure released by the American Institute in March was 68%. In this case the satisfied workers were more isolationist. The difference, however, was not very large.

As in the case of the question on communists, special tabulations were made for those favoring and opposing more federal control of industry, and aid to Britain. Men who endorsed more governmental control were those who: felt the company could pay more; thought hours were too long; felt they were not allowed to offer suggestions; and preferred the present job to responsibilities of being a boss. None of these differences was entirely reliable.

On the question of America first vs. aid to Britain, no important differences were found on the various job items. The only one approaching significance was that on whether the factory could pay more, the "aid to Britain" group being less concerned about pay levels.

How to Get Workers to Aid Defense Program

OUR results concur with those of earlier workers in the field of job satisfaction in showing that the desires for praise, for recognition and for interesting work have about as much to do with worker contentment as does pay. For the fact that pay ranks slightly higher for these men than for other groups studied we suggested the following explanations: (1) the men were aware of rising prices for things they

bought; (2) they had read of enormous sums appropriated for machine-tool contracts under the defense program; and (3) they had learned that wages in this region were considerably below the industry-wide average. It is further noted that the men who believe that their employers could (and presumably should) pay them more are in general those who feel dissatisfied about recognition and supervision. There should not be any sharp separation in our thinking between money-rewards for work, and the ego-satisfactions coming from a feeling of doing a good job, and having the boss know it is good.

With regard to national defense attitudes, we have shown that the men in this vital industry appear to be giving ample cooperation with the defense program. On the other hand, they are not strongly concerned about aid to Britain, preferring to defend their own country. They are all anti-communist, the dissatisfied even more than the satisfied.

There seems some reason for thinking that closer attention to the personal wishes and needs of these workers would cause them to put even more effort into defense work. While there is no certain justification for saying that the same conclusion would hold for workers in other industries, until studies are actually made, we recommend this point for serious consideration by all persons concerned with speeding the defense program.

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- (7) There is an almost perfect agreement ($r = .87$) between answers to the question on working harder and thinking others work harder—a good illustration of projection of one's own thoughts onto others.

An Attitude Survey Should be Part of a Sound Continuous Personnel Program, and Its Results Incorporated as Part of the Executive, Supervisory and Employee Training Programs, and Interpreted in the Light of the Organization Pattern of the Organization.

Job Attitudes. II Store Employees

BY GERALD BROWN

Oakland, California

IT is seldom that the management of a business organization is in a position to know how its employes really *feel* about their jobs, their wages, their working conditions, their bosses, and their fellow workers. No matter how ideal the relationship between superior and subordinate may be, or how intelligently the personnel functions are administered, frequently there are underlying forces having a detrimental effect upon an employe's efficiency which may never be divulged to management, least of all by the employe himself. Moreover, the difficulty to detecting these forces increases with the size of the organization.

Employees Inarticulate

IF you are a departmental supervisor, ordinarily you cannot expect a frank answer if you ask a subordinate what he thinks of you or the way you plan and administer the operations of the department. The answers are likely to be equally unreliable if you ask him how interesting is his present work, or whether or not there is a good way for him to find out if his work is improving, or whether he can get clear-cut decisions from his superior (you), or whether he has sufficient leisure time, and so on. Employes are prone to tell the "boss" the things he likes to hear and to omit the unfavorable aspects of the job, although the latter may irritate them considerably. They feel that the "boss" exerts too much influence over their future destinies to risk displeasing him.

From time to time various methods have been devised to measure employe "feelings". The chief weakness of most of these so-called attitude surveys is that

they are heralded as panaceas for all of the ills of the business and are thrust in stereotyped form upon one concern after another. They are not modified and adapted to the peculiar needs of each organization. Too often they are "sprung upon" employes without proper buildup and presentation. This arouses suspicions as to management's real motives in administering the survey, and the results are apt to be more harmful than beneficial.

However, an attitude survey which is incorporated as a part of the general training program and which is based upon the true organizational pattern of the particular firm being studied may be of tremendous value to management.

Conditions Necessary for a Successful Survey

BEFORE an attitude survey can be administered successfully, several conditions must prevail:

The management must know its pattern of organization—must know to which department heads each phase of the work has been delegated—and must be sure that wherever such responsibility is placed it is accompanied by the proper authority.

If the survey is to be "home-made" the questions must be so worded that, in general, information which is really needed, not that which is already known, may be obtained. If an outside copyrighted survey is used, it must be modified to fit the conditions of the organization. In some firms a particular type of employe may have several bosses; in this situation a survey containing questions about his "superior" would not bring forth the desired information, because it would not necessarily be obvious which superior he was talking about; the questions would then have to be more specific. On the other hand, in a line management type of organization, where each employe has only one boss, it is much simpler to place responsibility for judgments rendered.

Follow Through Suggestions

THE management must be prepared to follow through on all suggestions developed in the survey. Naturally many, if not most, ideas cannot be applied or adopted for one reason or another, but all should be considered carefully. Otherwise the survey may do more harm than good because of distrust and ill-will created among employes.

The actual presentation of the survey to employes must be made in such a way that they will be fully convinced of two things—that the management sincerely desires the information for practical purposes, and that answers given will remain anonymous. In some firms the questionnaires are deposited in sealed "ballot boxes", which are pried open by an employe committee after the survey is completed. This committee sorts the questionnaires into proper groups, makes certain that everything is in order, and then turns over the forms to an outsider who tabu-

lates the information and makes a report to the management. The latter group never sees the original questionnaires.

Summary of Experience

FOLLOWING is a summary of the experiences of a retail firm in California, in which an attitude survey was conducted recently:

We operate under a line management type of organization. Each employee has only one boss, and no executive or department head supervises more than ten persons. Therefore, it was rather simple to segregate responsibility and divide employees into significant groups for purposes of the survey. We used a copyrighted survey, whose questions were well adapted to such an organizational pattern.

The plan was introduced to employees as a means 'to achieve more or less systematically some of the things we try to achieve in actual operation every day.' We wanted them to realize that it was merely one phase of the general program to review the various operations of the store and correct those things which required correction—not a 'bolt out of the blue' cure-all which was going to revolutionize the operation of the business overnight.

Application of Ideas Long Term Proposition

WE TRIED to stress the fact that the application of the ideas and opinions in the survey is a long term proposition. Employees were told not to expect an immediate reversal in the policies, plans, and operations of the company. They were promised 'a little good', and probably a few immediate improvements where obvious faulty conditions prevailed. The rest would involve a great deal of additional analysis and assimilation; radical changes cannot be adopted without giving due consideration to all factors involved, no matter how favorable they may appear on the surface.

The survey was well received and in the main opinions given were sincere and constructive. In the short time we have had to follow through on the completed reports, we believe that the survey has been most advantageous in three respects:

It gives management a direct critical judgment (by their subordinates) of certain department heads whose efficiency and leadership qualities have been questioned.

Distinguishes Profit-Makers from Leaders

WE HAVE had department managers who were excellent profit-makers but somehow we felt they were not good leaders—they were not training their subordinates to be loyal, efficient workers, were not giving them any encouragement to present new ideas, and made no effort to develop future department heads. The survey not only gave us an objective confirmation of our suspicions in some of these cases, but it provided us with concrete material to be used as a basis for talking to

these persons about their lack of leadership, whereas before we could speak only in generalities.

It had been very difficult to prove that a department head showed favoritism in the treatment of his subordinates, or that they did not feel free to go to him with their problems, or that he did not administer reprimands properly, or that he did not greet associates when he came to work in the morning, and so on. But now we had written evidence of how his subordinates *felt* about him in these respects, at least, and we could use it as a basis for constructive criticism of his methods of running the department.

In some cases the department head learned things he did not know about himself. One man was accused of showing favoritism in delegating work to his subordinates, and it was evident that he had done so quite unconsciously, and had never once thought that his actions might be construed as favoritism. He had merely acquired the habit of delegating work where he knew it would be done with most dispatch, and had overlooked the organizational breakdown of duties in his department.

It brings again to the attention of the top executives those things needing correction about which they have been conscious but somehow "never go around to". Practically every business organization tends to run along in certain ruts, and although management may be conscious of changes needed, inertia develops because of the feeling that something is right because it has always been done that way. An attitude survey often tends to crystallize the need for such improvements and drives home to management the fact that something must be done.

The Cash Bag Rut

IT WAS formerly the procedure in our store for salespeople who operated cash registers to turn in their cash bags at the Cashier's office on the third floor every night after the close of work. If they were working in the basement or on the street floor this meant that they had to go upstairs to the third floor, deposit their bags, and return to the Employees' Mezzanine in order to get out of the building.

Time checks proved that this took an average of 10 minutes per person longer than if bags could be deposited on the Employees' Mezzanine on the way out. The cumulated wasted time was costing the store more than an additional full time employe every week, and, moreover, the salespeople were not too happy about the inconvenience.

Management knew this, and the problem was discussed from time to time over a period of years, but nothing was done. The Controller said the money would not be safe if handled on the Mezzanine, and everyone let it go at that. However, in the recent attitude survey, numerous criticisms were made of the cash bag procedure, and it was obvious that there was a great deal of serious discontent among employes.

Practically all of those who criticized the procedure suggested that provision

be made for handling the money on the Mezzanine. This brought the matter to a head, and within a week the Superintendent had cut a hole in the wall of the well-protected tube room adjoining the mezzanine floor, constructed a barred window, and the new system was placed in operation.

The London Executive

TOP executives of nearly every business institution have certain idiosyncracies which might seriously affect the efficiency of the business but which are not questioned openly because of fear of displeasing those executives. The general manager of one Western department store had received his earlier training in London, where old worn, dust-covered commercial buildings were believed to be a sign of dignity and strength. Therefore he would never allow the front of the building to be washed. The facade remained in this condition for several years, until his death. Then it was necessary to sandblast the walls in order to take off the accumulated grime. During this process chips were eaten out of the original structure and it had to be entirely refinished! Had an attitude survey been administered during his regime, it would probably have brought to a head the seemingly obvious fact that the building was so dirty the store was losing customers, and something would have been done.

Adjusting Hours for Office Employees

AN ATTITUDE survey serves the further purpose of uncovering unfortunate trends before they develop into major issues.

For several years our store has been geared to a six day, forty hour week ($6\frac{2}{3}$ hours per day). Salespeople have never objected to this arrangement because it permits them to be on the floor during the peak hours of every day (in fact, during the same hours the store is open), and their volume increases accordingly. Most of the non-selling employees were placed on the same basis because it made for uniformity of payroll procedure. However, apparently there was serious discontent among workers in the office division, who felt they should be allowed to work twenty minutes longer each day and have Saturday afternoons off, because they would still be working the same number of hours per week and would get just as much done.

This was really a major issue with them and they were very irritated because of the failure of management to do something about it. The unfortunate part was that the management was entirely oblivious to the fact that these employees were discontented. No formal complaints had ever been made about the working hours and there was no reason to believe that non-selling employees were not happy with a shorter day. Apparently they had either been afraid to 'speak up' about what they had in mind, or else each person had thought that someone else would make the suggestion.

Had the attitude survey not come along, this problem might have grown out of all proportion and developed into serious trouble before it was brought to light. As it was, nearly every office worker requested on his questionnaire that he be allowed to rearrange his hours to have Saturday afternoons off. Within three weeks after the report was submitted the new system was placed in operation.

In general the survey was taken in stride by the organization as a part of a sound, continuous personnel program. Employees were pleased with a chance to 'speak their piece' without fear of reprisal. It gave them a certain amount of responsibility in the operation of the business with respect to matters affecting them.

Intangible Values

EVEN if a particular organization does not realize all of the benefits listed above, the refreshing comments made by participants in the survey will give management enough things to think about, if not to act upon, to make the plan worth while. And even if no constructive action is possible as a result of such a survey, it may still be of great intangible value because of good will created among employees, who possibly for the first time are asked for their frank ideas and opinions respecting the operation of the business.

Social Conditions Must Be Considered

ONE or two precautions should be observed in interpreting answers to the questionnaires, however. First, if there are questions having to do with working conditions, favoritism, congeniality of associates, and so forth, the answers must be considered in the light of social conditions within the department. Such things as poor lighting or lack of ventilation might never be mentioned by those who are on the best of terms with their fellow workers, and who enjoy their work primarily because of the friendly atmosphere. Such persons tend to avoid complaints wherever possible and are apt to omit comment on obviously faulty conditions. On the other hand, an employee who is "out of sorts" with his fellow workers, or who has troubles outside his work is apt to exaggerate his complaints because he feels he is being discriminated against. Therefore, when answers are extremely favorable or extremely unfavorable on any question, management should consider carefully whether there are any outside influences which might affect the written opinions.

Answers that Can Be Predicted

SECONDLY, there are usually certain questions included in an attitude survey whose answers can be predicted in advance. Such questions are not put in with the object of obtaining information, but merely to assure employees that the management has not forgotten these problems. A good example is a question about wages. No normal person is ever satisfied with the amount of his pay, no matter how much he may be earning, and this fact should be realized and taken into account when an

overwhelming demand for higher wages shows up in the final report. Another favorite target is the employes' cafeteria. No matter how good the food or service may be, it has been found that a great number of employes like to complain about their cafeterias, probably because that is one phase of operation over which practically none of them has any control and because a thousand employes can have a thousand individual preferences insofar as food is concerned. Therefore, comments regarding the cafeteria in any organization should not be taken as seriously as they might appear to require at first glance.

Finally, attitude surveys have substantiated the premise that what employes think is the case in any situation is far more important than what may really be the case—"It's how they *feel* that counts."

Part I of this Paper (which Appeared on p. 42 of the June, 1941 Personnel Journal) Dealt with Workers Who Are Willing But Unable to Work Safely. This Part Discusses Ways of Aiding Them to Do So.

The Psychology of Safety, Part II

BY CHARLES S. SLOCOMBE

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ONE of the reasons why records of minor accidents are not used for study of behavior patterns of accident prone workers, looking toward their correction, is that companies have spent many years getting employees to go to the plant hospital for dressing or treatment of the slightest injury. This avoids the possibility of infection, or a wound developing into a serious lost time accident.

It is felt that if these slight injuries were taken notice of, and action taken by the personnel or safety department, in regard to them, that employees would be afraid to go to the hospital when slightly injured, for fear some disciplinary action might be taken against them, or they be branded as careless.

Personnel Department Neglects Such Records

SO THAT in the company from which these records are taken, the personnel department leaves the records tied up in a bundle, which is used to prop the door open. Another company, with similar records, deliberately destroys them without looking at them.

This ostrich like policy seems to stem from the basic error in the assumptions of the safety movement, namely that a man who has accidents, has them because of his unwillingness to abide by the safety principle, and is therefore subject to censure or reprimand when he has an accident. As soon as it is recognized that a man has accidents because of his inability to avoid them, and the personnel department is recognized as having as its function helping him to avoid them in the future, there is no trouble in dealing with minor accidents, studying their occurrence, talking

them over with the accidentee, and working out ways of avoiding small and big accidents in the future.

What Can Be Done

SUPPOSE there are these non-conformists to the safety principle—accident repeaters—in industrial plants (every study so far made shows their presence), what can be done about them? Various studies have been made of the relationship of accident proneness to blood pressure, reaction time, fatigue, age, and other factors. None of them are conclusive, but all are indicative. Actually each case must be studied as an individual one, the cause of accident proneness diagnosed, and a suitable corrective treatment devised.

The English, who first found non-conformity to the safety principle, by their statistical studies of accident records, sought and are still seeking for an easy solution of the problem. Their idea is to use psychological tests to cull out, from those hired, the ones who are likely to have accidents.

Poor Results with Tests

THIS method has been tried, in isolated companies in America, but without much success. Actually most of the results of testing show a low relationship of accidents to psychological factors that can be determined by tests. (In terms of correlation coefficients, they generally run about .30.)

Tests of speed of reaction, accuracy of reaction, oscillation of attention, concentration, etc. have been tried, but have not been found very useful in picking out the accident prone. The reason is stated statistically and generally by Slocombe and Brakeman in the *British Journal of Psychology*, July 1930. It is due to the fact that any psychological factor, such as attention, or any number of psychological factors determinable by test, is or are only a small part of the causes of accident proneness.

Health, attitude towards employer, interest in the job, family worries, etc. all have their influence on the ability of a worker to avoid accidents. Professor Hersey of the University of Pennsylvania found emotional highs and lows among workers, with a periodicity on the average of six weeks, and that accident frequency was high among those affected by this periodicity during their low periods.

Hence it is no wonder that psychological tests of reactions are not very useful in culling out accident prone workers.

Main Cause Faulty Training

GETTING away from attempts to solve the problem by too simple means, we may now discuss actual cases of accident proneness, and how they have been dealt with.

The most numerous cases of accident proneness are due to faulty or inadequate

training. A man is hired by a company, and if inexperienced, is trained by it. In most companies little heed is paid to the type of training, or safety training given, or the accident record of the worker who does the training. Consequently a new worker is often trained by an accident prone employee, and so learns bad habits from the start.

When we first started to reduce the accidents on the Boston Elevated Railway Company, we went through the usual training of a street car motorman. During this period of training we had an accident, ramming the street car into a truck coming out of a side street.

When the training ended we checked up to see the records of the workers who had trained us. We found that every man who had participated in our instruction was a man who had a lot of accidents.

We promptly insisted that, in future, only men with a good safe record should be used in training new employees. A list of such men was made out by the employment office, and only they were given training work.

Instructors Should Be Safe Men

MANY personnel men in industrial companies think that such a circumstance could only happen in a street car company, where personnel work is supposed to be poor.

But we have yet to be convinced that similar conditions do not exist in industrial companies. We remember an incident tending to show this in an electrical manufacturing company, with a first class safety record.

We stood talking with the foreman in a department one afternoon, and noticed one girl helping another to fix her machine. We asked how long it took to learn that particular job of machine operation, and were told "six months." We asked how long the girl instructing the other had been on the job, and were told "six weeks."

We do not know if this is typical, but suspect that throughout industry new employees, with but six weeks experience, with no check on their accident record, are being used to train newer employees, when it takes six months for them to become proficient and safe in the job.

Difficult at Present

DURING such times as this, when there is a defense boom on, and employees are being hired at a rapid rate, it is difficult to make sure that only safe employees train new workers. But at least the attempt could be made. It would be our guess that few personnel departments, using experienced workers to train new workers on the job, bother to see that the trainers are accident free men.

If this is true, then companies are breeding into their organization a perpetual crop of accident prone men.

The remedy for this situation is obviously to see that every man who is entrusted with the job of helping to train new workers is himself an accident free man. And when we say accident free, we mean a man who is free of little as well as big accidents.

The next most frequent cause of accident proneness is the development of bad habits or methods after initial good training. When a man has learned to play golf well, he may later develop a slice or a pull, and his game deteriorate. He usually then relies on a pro, or his fellow golfers, to tell him what has gone wrong with his swing.

But some workers, even if properly trained in the beginning, gradually develop some kink in their working habits which causes them to have accidents. But no one bothers about it, and the safety movement, as operating at present, immediately assumes that they have developed an unwillingness to abide by the safety principle.

Remedial Training also Necessary

HERE is where remedial training comes into the picture, under a logical system of safety work. The worker may be worried because he or she has developed the accident habit, and wants help to get out of it. The safety movement, as at present organized, assumes that he or she has given up her desire to conform to the safety principle, and so instead of studying her troubles with her, they condemn her without a hearing, reprimand her and forget the whole business.

Actually what the safety or personnel department should do is to sit down with her and study out the causes of the little accidents, in terms of working habits, so that they may be remedied and future major accidents so avoided. In this way she would not be subject to disapprobation, as unwilling to conform to the safety principle, but be helped to conform, by doing her job the right and safe way.

Conflicts of Motivation

ANOTHER frequent cause of accident repetition on the part of some workers is a conflict of motivation. In one company we found a man with sixteen street car collisions a year. When we interviewed him, we found that he boasted of being the best and fastest operator in the division. He always brought his car in on schedule.

But the safety people wanted him to operate without accidents, and as he saw it, he could not maintain schedule and avoid accidents. So he had made up his mind that he was going to maintain his reputation as a fast operator, and "To hell with the safety business."

We talked the matter over with him, and told him that there were plenty of places on his route, which we knew from our studies, were not hazardous, and he could lick along there as fast as he could, so gaining time that he could use up in going slowly and carefully along places where the accident frequency was high. In this way he could maintain his reputation as a fast operator, and add to it a reputation as a safe operator.

We sent out an instructor on the car with him, to show him where he could go as fast as the car would go, and where he should go slowly and carefully.

He came through the next two years without any accidents, and the other men in the division, talking things over with him in the lobby, caught on to the idea, and many more accident prone men ceased having accidents immediately.

The same sort of thing occurs in industrial plants. We saw one girl in a factory operating a machine stamping powdered plastic into a mold. She put the material in with her fingers, and the stamper came down and pressed it into shape. As it was a hazardous operation, in that if she did not get her fingers out of the way before the stamper came down, she was liable to have them crushed, there was a lever on the machine, which she had to press with her hand, and which prevented the stamper from coming down unless held. By this means it was expected that fingers could not be crushed in the machine, because fingers had to be on the lever instead of possibly below the descending stamper.

Safety vs. Production

BUT the girl was on low pay at piece rates, and found that working this safety lever slowed up her production so much that she could not earn enough. So she deliberately put the safety contrivance out of commission, and took a chance on her ability to get her fingers out of the way before the stamper came down.

These cases are cited to illustrate the very common cause of accident repetition, due to a conflict of motivations, in which generally the normal safety motivation is overridden by some other motive. The job of the safety department is then not to discipline such employees, or stick up fancy colored posters, but to resolve the conflict for the employee, in terms of adequate safety *and* production, so that he or she may not have accidents in the future.

Respect for the Boss

ANOTHER influence affecting accident repetition is the attitude of workers toward their boss, their respect for him, or lack of it.

In one division of a street car company, in a little town, with only a hundred men, we found a high accident frequency, and many repeaters. There did not seem to be any reason why this should be so.

But we found that the superintendent, a man with 28 years service with the

company, had turned to drink. He sat in his office sozzled most of the time, and had accidents when driving his own car. Consequently when he tried to discipline the men, they had no respect for him.

In view of his age and length of service the company was loath to fire him, but had given him his last warning.

On investigating the case we found that a year before his wife had died, and also his only son. His life was therefore a void. He was boarding with a foreman in the company, but had developed the idea that this foreman was scheming to get him fired, so that he might get his job. Hence he, a first class employee, took to drink, and the accident frequency in the division went sky high.

Upon learning these facts we took the matter up with the president of the company, and the manager of the division. It was decided that the remedy lay in trying to fill the void in this man's life, left by his loss of his wife and only son.

Superintendent Recovers and Reduces Accidents

HE WAS advised to live in some other house than that of the foreman, with whom he did not get along. The manager of the division was asked to take the superintendent to the movies with him, whenever he went, and to bring him along to any conventions held (usually once a month), and to bring him up to the head office, whenever the manager had occasion to come, (usually once a week).

Whenever he came to conventions or to the head office of the company, we or the manager of the division made sure that he shook hands with the president of the company, and was introduced to convention delegates. In this way this superintendent was rehabilitated, and began to feel that he was recognized as a useful member of society. His recourse to the bottle for consolation ceased, and he regained the respect of the employees under him. The accident record of his division thereupon improved.

In another case in the same company, in a small town, we found a high accident frequency. It seemed strange, because the manager was an excellent man, and his supervisor was most hardworking and conscientious.

We interviewed some of the accident repeating employees to find out why they kept on having accidents. Almost all of them just hated the guts of the supervisor, who was supposed to instruct them in safe operation. He was a rather small young man, with an inferiority complex, which he tried to overcome by acting in a bossy manner to men twice his age and twice his size. So instructions about safe operation that he gave, were resented and not taken any notice of.

Psychoanalyzing the Supervisor

WHEN we realized this situation we took him out in the car, parked along the riverside, and gave him a little psychoanalytic talk about inferiority complexes, and the reactions of people to one another. We told him that the company

recognized him as a valuable employee, and he did not need to boss other workers to prove his ability. The company recognized that, and what he had best do was to start making friends with the workers, so that they would then listen to his ideas on safe methods of work.

Fortunately he took our advice, and after a year, with some subsequent help, he succeeded in cutting the accidents in his division in half.

In industrial companies we have seen or suspected similar conditions. In one company the president asked us to look into an accident situation in one department. We saw the superintendent, and in the middle of the afternoon he was throwing his weight about, bawling out workers and foremen, with an obvious hangover from the night before. What the cause of his trouble was we did not find out, but were certain that accidents in that department could not be reduced till the superintendent was straightened out.

Effect of Organization on Workers

ALLIED with these problems of individual mal-adjustment of supervisors, as causes of accident proneness among workers are organizational problems.

We visited the offices of a traction company in a large city recently. As we walked in the door we noticed a board about fourteen feet high on which were displayed the names of innumerable vice-presidents, superintendents, assistant superintendents, etc. Apparently two street car companies and a bus company had amalgamated, and jobs had to be found in one company for all the officials of all three companies.

There was fighting, wire-pulling and jealousy among all these executives. And each one had a group of employees following him. The public relations of the company were bad, and its accident record worse, because with such a disunited jealous group of executives, there was no morale in the company, no enforcement of discipline, and no real appreciation of the accident problem.

Tests not the Answer

BUT actually there was a psychologist in the company trying to reduce accidents, by means of psychological tests, to cull out accident prone men. He complained that he could not do it because the company would only provide him with reaction test machinery that would measure reaction time to a 25th of a second. He thought that he could lick the problem if they would provide him with a reaction testing machine that would measure 100th of a second.

Actually the only way this psychologist could get any results in accident reduction in that company would be to throw all his reaction machinery out of the window, and start in to weld the executives into a homogeneous group, and eliminate their jealousies, by building up the leadership of the company president.

If this were done the number of accident prone men would immediately start

to reduce, and the company would be recognized, in the community, as one rendering safe service.

Each case of non-conformity of workers to the safety principle presents its own problem, which must be diagnosed, and a suitable treatment or remedy worked out. Mass appeals based upon an assumption that the workers are unwilling to abide by the safety principle are useless. Actually almost all workers desire to abide by this principle, and those who do not are disciplined by their fellow workers, as are the noisy readers in a library.

Some are not able to work safely, because of faulty training, or conflicting motivations, or lack of respect for their boss, or ill-health, or some other reason.

Real Job for Personnel or Safety

THE job of the personnel department, or the safety department, is not to discipline them, or to stick fancy colored posters in front of their noses, or try to whip them up in an emotional frenzy of safety consciousness, but to diagnose intelligently the cause or causes for their accidents, and work out with them ways of avoiding accidents in the future.

This work can be done only by a first class industrial psychologist, who can take care of 5,000 employees, who should be paid not less than \$6,000 a year, and who would, with proper backing, save the company that hires him one hundred times his salary, in reduced accident costs.

Some Companies and Offices in Business and Government, Who Have Not Enough Employees to Warrant a Magazine Issue Monthly or Periodic Bulletins for Supervisors and Employees. Here is a Good Sample.

The Responsibility of Being Boss

A Personnel Bulletin

THERE are about 2500 people in the company who supervise the work of other people. If you are one of these you are in a spot of great responsibility.

Whenever two employees meet for the first time it is a safe bet that one of the very first questions they will ask each other will be: "How's your boss?" By the way the people you supervise answer that question, you may, to a considerable extent, measure your success or failure.

The answer may be an enthusiastic "He's swell!" If this is the answer you may count yourself both skillful and lucky. For such a reply reflects an attitude that will make your shop run pleasantly and at a top speed.

Are You OK?

OR THE answer may be a non-committal "Oh, he's all right." Not so good. For, if such an attitude is general, you will probably find that your office turns out just enough work to get by and that the atmosphere is one of constraint.

Finally the answer may be in Anglo-Saxon words of a few syllables that flash sparks. The boss who is thus graphically characterized by his workers is both to be pitied and censured. For his work life will be marred by constant bickering and muttering. People will be doing their best to "get away with something," and in most cases his shop will turn out the barest minimum of work.

What do *your* workers say about *you*? Don't be too hasty in patting yourself on the back. Almost every boss feels that his own method of dealing with his employees is just about perfect. Unfortunately, however, this business of being a

bad boss is something difficult for the offender to detect in himself. And "even his best friends won't tell him." The only way you can really find out how you rate is through some pretty intensive self-analysis. Here are some questions you might ask yourself to help in this check-up.

1. Do Your Workers Know Why Their Shop Is Doing What It Is Doing?

OURS not to reason why, ours but to do or die" is a dubious enough philosophy even for an army in the field. In a company trying to do creative work it just won't go over. The employee who knows where the work of his unit fits into the larger picture of the broad objectives of the plant is going to work with more zest and make fewer blunders than the one who isn't permitted to see beyond the edge of his desk. The boss who tells "why" whenever possible is taking a long step toward the "He's swell" class.

2. Does Each of Your Employees Know What Is Expected of Him All the Time?

MENTAL telepathy is an interesting parlor game, but it doesn't amount to much as a way of giving directions. Telling what to do and how to do it in a new situation is one of the most important parts of the boss's job. Since employees are not mind readers, directions must be explicit, clear, complete and so related to established work-ways that the worker will not be lost or confused. The boss can check his ability to give directions by simply following up a few sample cases every now and then to see whether he is getting his ideas across.

3. Do your Employees Feel that Good Work Will Bring Its Just Reward?

OF COURSE the best reward for good work is promotion, and in recommending these the supervisor is limited by administrative and budgetary restrictions. There are no limitations on encouraging words, however, and rare is the boss who uses too many. Recent psychological experiments show that persons receiving both praise and criticism when due improve most rapidly; those receiving only praise next; those receiving only criticism next; and those receiving neither praise nor criticism improve least rapidly. Judicious praising of a worker for a job well done is not a sign of weakness but a practical part of the job of being a good boss.

4. Do Your Employees Resent Your Kind of Discipline?

DISCIPLINE need not be unpleasant—quite the contrary. The sense of individual importance which comes from making an acceptable contribution to a co-operative enterprise is one of the most potent standards by which men live. And discipline is necessary to enable the individual employee to do his part of the co-operative job. Discipline properly considered is training, not punishment; explana-

tion, not reproof. The mistake of an employee gives the boss a chance to apply correctives. And each time a corrective is applied, the need for further discipline should be lessened and the cooperative enterprise should be helped to move forward.

5. Do Your Employees Feel Free to Offer Suggestions, to Sponsor New Ideas, to Tell You When Something Is Wrong?

OR is your organization a one-way street where you do all the talking out loud? Would it be worth your while to stop and listen to what your employees have to say a little more? Employees don't just talk to hear themselves, or because they are perennial soreheads and troublemakers. They have something to say. But maybe they think you shouldn't hear, because you are boss. There are several formal means that have been successfully used for developing this valuable flow of comments from employees. Employment of counselors whose full time job it is to do just this is one. Wide participation in staff meetings, questionnaires, suggestions systems, and the organization of employee committees are others that are useful. Perhaps the best way of all is the informal one of having the boss himself be so accessible and be such a "regular guy" that employees come to him without fear and with the knowledge that whatever they have to say will be cordially received.

6. Do All Your Employees Feel that They Receive Fair and Equal Treatment from Their Boss?

EVERY man likes to think he is always fair and just in his decisions. "Teacher's pets" are uniformly despised. Yet it is very easy for a boss to slip, almost without knowing it, into the habit of leaning toward a few individuals or a particular group in recommending promotions, giving interesting assignments, or just in the ordinary life of the office. Or, conversely, he may be "down on" some people. Nothing can wreck morale faster. The only way to prevent this from happening is to examine critically your own motives and reasoning whenever you make a decision affecting your employees. Lean over backwards, if necessary, to be sure of your fairness. Then, whenever possible, be fair out loud. That is, explain your method of arriving at a certain decision to everyone concerned. For an apparent unfairness can do as much harm as a real one.

7. Do Your Employees Feel that Their Boss Treats them Like Human Beings?

THE whipcracking, barking type of boss who secures his results through fear is rapidly fading from the picture. He was a bull among the fragile china of human feelings. In his place has come the boss who leads, not drives. He understands the desires for self-expression and participation that exist in every person. He knows that most people will give just about what they receive in such matters as respect for opinions, courtesy, and confidence. Actual cases have been recorded

where the working ability of an employee was lost through worrying because the boss failed to say "good morning." This does not mean mollycoddling or bowing and scraping. It simply means a practical application of the realization that thinking human beings cannot be treated like robots.

When you can honestly check yourself off as handling these seven problems well, you will be well on the road to discharging successfully your important responsibility of being boss. Beyond this, you will be putting your own house in that order of democracy in which we live, and which the nation as a whole is seeking to preserve in a troubled world.

Book Reviews

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MIDDLE MANAGEMENT; THE JOB OF THE JUNIOR ADMINISTRATOR

By Mary Cushing Howard Niles. New York: Harper and Brothers, 1941, 270 pp., \$3.00

Reviewed by Donald K. Beckley

The specific problems of the junior executive, important as they are, have been rather generally neglected in the literature of the personnel field. While a great mass of general material applicable to junior and senior administrators alike has been written, little attention has been given to the areas wherein their respective duties and responsibilities differ.

In her book *Middle Management*, subtitled "The Job of the Junior Administrator," Wrs. Niles has done a useful job of giving helpful advice to the junior executive. The material she has included covers quite thoroughly the range of problems likely to be found by the men and women holding these essential intermediary positions. Of particular interest is a chapter on the relationship of the junior administrator to his superior, which discusses methods of working with the superior in running the department, of keeping him properly informed, and of getting his action on recommendations.

Another especially significant chapter considers the frequently undetermined part of the junior executive in carrying out in his department the various personnel duties, such as training, promotion, salary adjustment, and discharge. Problems of developing subordinates as department supervisors, of department reorganization, and of handling employee suggestions are also discussed at length.

This volume is not a text, and contains no bibliography and but few references to management literature. It has been written from the management viewpoint primarily for the businessman rather than for the scholar, and includes numerous cases as illustrative material. The book has been written simply, and while many of its statements might at first glance appear to be obvious generalities; a thorough reading leaves little doubt as to the soundness of Mrs. Niles' approach, and as to the lasting value of her practical suggestions.

The author's background is in the field of office work, primarily in insurance companies as a management consultant, and this book has been written with special reference to those organizations which have a large percentage of their employees engaged in doing clerical work. The usefulness of her book is by no means confined

to this limited area, however, and it should prove to be valuable reading for present and prospective junior executives in any field—and equally important, for their superiors.

HOW TO SUPERVISE PEOPLE

By Alfred W. Cooper. New York: McGraw Hill
Book Company, Inc., 1941, 150 pp., \$2.50

Reviewed by J. M. Trickett

Occasionally, a book is written which fits the particular problems faced by a special type of businessman. Here is a book which discusses the problems faced by *all* businessmen who supervise others, or who aspire to such supervision.

Mr. Cooper has conducted thousands of supervisory conferences, representing nearly every grade, and every division of American industrial and commercial activity. The book is a logically organized, carefully catalogued epitome of the opinions and ideals of several thousand successful supervisors. A listing of the chapter headings indicates both its logical organization and broad scope: How to Become a Supervisor; The Responsibilities That Come With Authority; The Physical Condition of Your Subordinates; How to Develop Group Morale; The Qualities of Leadership; This Thing Called Cooperation; Hiring, Reprimanding, and Firing; When and How to Delegate Authority; The Supervisor as a Teacher.

In the last twenty pages of his book, Mr. Cooper lists sixty-seven questions for group discussion. These thought-provoking problems are grouped under six general headings corresponding to the various supervisory responsibilities discussed in the preceding chapters.

Ambitious employees who hope someday to become successful supervisors, foremen and supervisors currently facing leadership problems, and higher executives often in need of reviewing their techniques—all can profit by the experience behind this little book. Also, conference leaders and those interested in supervisory training of any sort will find this a handy reference book.

TRAINING WORKERS AND SUPERVISORS

By Charles Reitell. New York: McGraw-Hill Book Co., 1941, pp. xiii, 174, \$1.50

Mr. Reitell has written a good primer for people who are beginning the study of training in industry. The rather ambitious scope of the book covers practically all phases of the problem.

The experienced training supervisor or personnel director will be disappointed that the coverage is so thin. In places it is little more than an outline thinly padded with such unlaudable statements as these (Pp. 20 and 23): "Some companies use a small form with comparatively few leading questions. Others are quite extensive in the type and number of questions asked."

The plant manager or superintendent who has decided to start some organized training and wants to hire a training supervisor might find it helpful in interviewing applicants, for it mentions most of the things a training supervisor should know. It might also suggest to a plant manager some of the services for which he might employ a management engineer.

For a foreman who has been made training supervisor without warning, it would be valuable as a quick outline of his own self-improvement program.

The book would also serve as a good outline for a training program. In addition to covering the ground, it is essentially sound. Some "experts" in teaching methods and/or techniques will argue with the terminology in Chapter 10, "The Techniques of Good Training." There will be some who will insist that Job Rating, Operation Lists and Time Studies, The Use of Gauges, Safety Habits, and Measuring and Portraying Improvement are not training techniques in the true sense.

The more common objection to this chapter will be, however, that the techniques of good training cannot be adequately presented in a $4\frac{1}{2}$ -page discussion of the above headings supplemented by 3 pages of illustrative charts.

Similarly, $3\frac{1}{2}$ pages will seem like short work for "Principles of Good Teaching." Of course, Glenn Gardner has reduced this subject to calling card size, but his OPM card is backed by 10 hours of instructor training.

In a word, the book presents in almost outline brevity the accepted procedures in training workers and supervisors.

PRINCIPLES AND TECHNIQUES OF VOCATIONAL GUIDANCE

By George E. Myers. New York: McGraw-Hill Book Company, 1941, 377 pp., \$3.00

Reviewed by Book Review Editor

Here is a book that leaves the reader feeling he has pretty well examined the whole field of vocational guidance; and indeed, he has. The work is more than an inspiration: it seems to me to be a thoroughly technical contribution to the best that has been done so far in vocational guidance literature.

The term "personnel work" came into educational literature from the field of industry. Industrial management gradually became conscious of the fact that other factors besides worker's skills, quality and conditions of his tools and his physical condition affect the worker's efficiency. In like manner, student personnel work deals with the *person* of the student as set up for his education and development. *Student personnel work brings each student into the educational environment under such circumstances as will enable him to obtain the maximum of the desired development from his environment.* Its function is not contributing to the personal development of the individual—that is the job of the school environment provided for that purpose. Vocational guidance, aimed at the best development of the student with reference

to vocational aspects of life is only one part, though an important part, of the personnel program.

Myers is not only an authority in his own right, but takes occasional exception to other well-known writers whenever his premise leads him across their paths. Particularly good are his distinctions drawn from among the many kinds of guidance, the clarifying of terms and their intricate relationship to the whole field of education. The author, however, differs not so much on what should be done under the terms of guidance and student personnel work as in the relation of what is done to the educative process.

Organizing occupational informational services and setting up a self-analysis program for students to explore are two excellent chapters for teachers of occupations. Chapters on ratings, special aptitudes and interests, personality characteristics, and the placement service are especially well done. The chapter on research service, intended to cover various kinds of studies and investigations pertaining to vocational guidance, is a little disappointing; perhaps we expect too much from research in such a young field. The final pages on administration of the student personnel program is a good contribution and shows how the eight services mentioned in the book constitute a school enterprise in which all members of the staff participate.

Charging that an adequate program of public education is impossible without vocational guidance, the author believes it is the school system's responsibility to provide youth with the needed vocational guidance and preparation, and to take the lead with the cooperation of other social agencies . . . a joint community responsibility which centers in the public schools.

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The Difference in Output per Employee of a Factory having Selected Contented Healthy and Interested Employees is 25 to 30 percent Greater than in the Factory with Less Personnel Work. Increased Efficiency Pays for the Personnel Work.

Personnel Policies *and* Practices Survey

BY P. M. JONES

Mississippi State College

MANY business firms tend to collect dead wood in the form of outmoded equipment, methods, and ideas. Organizations become stagnant; inefficiency and waste increase; competition increases and firms eventually must face financial embarrassment or reorganize their policies drastically. Too frequently the fault lies in that those in charge have not scrutinized each branch of their business and asked themselves constantly, "Is this the most efficient method to use under these circumstances?"

What Small Businesses Realize

MANY Mississippi employers recognize that more efficient methods and ideas concerning the handling of labor have been evolved than those they are now using, and that their adoption will mean increased profits. It is true that Mississippi is not an industrial state. The number of employees per establishment is insignificant when compared with the leading industrial states. It is a state, industrially speaking, of small factories in which labor is an important cost of production.

Technical skills and knowledge have received the attention of our industrialists for generations; they have served as the bases of curricula in our educational institutions, and again today they are being studied as the main factor to be considered in national defense production. Progressive employers realize that mechanical and material achievements are most valuable only when *human* efficiency is achieved. They know that they cannot secure the fullest capacity production unless they know how to select and maintain their personnel effectively.

On the basis of information recently received Mississippi is making progress, but at present over three-fourths of her employers are not taking advantage of the opportunity to reduce labor costs by careful selection, placement, wage payment, training and general personnel practices which have been proved to be sound both in theory and practice. The performing of these services scientifically does not mean that every firm need set up a separate and distinct personnel department, but it does imply an additional cash outlay for the collecting and filing of cumulative data as well as for the additional costs of hiring, training, and follow up.

Experience of Eli Lilly Company

THE question which comes immediately to the mind of the entrepreneur is "Who pays for all this? Are these costs taken out of profits, or are they added to the cost of merchandise?" The fact is that nobody pays for them. Mr. Eli Hanley, of the Eli Lilly Company, Indianapolis, states, "The difference in output per employee of a factory having selected, contented, healthy, and interested employees is 25 to 30 percent greater than the factory which regards its employees as human machines only, and this increased output pays the bill. Cost sheets for over 20 years verify this conclusion. After many years of study and experience the statement can be made, that one of the most valuable assets of any corporation is a corps of loyal, intelligent, and satisfied workers, and that not only the corporation profits thereby, but a distinct service also is rendered to the community and the nation." Speaking further, Mr. Hanley states that results come to the employer in the following nine ways: "(1) A more highly selected class of employees, (2) fewer interruptions due to sickness, (3) no absences except for unavoidable reasons, (4) a real interest in company affairs by intelligent and interested workers, (5) minimum of labor turnover, (6) a decrease in avoidable wastes, (7) better quality of merchandise, (8) more output per employee, and (9) no strikes and labor problems." (Walters, J. E. *Applied Personnel Administration*, pp. 16-17)

Methods and Objectives of Mississippi Study

THIS study of Personnel Activities in Mississippi was made by the class in Personnel Administration at Mississippi State College. Questionnaires were mailed to 305 business firms. The total number of people employed by the 169 firms which cooperated in the study totaled 21,747. The writer feels that it is safe to assume that approximately 30% of the total number of employees in the state engaged in business and industry are included in this report.

The purposes of the study were dual in nature, being intended to serve as teaching and motivation aids in addition to furnishing some original information with which to work. They may be enumerated as follows:

1. To ascertain by random sampling the nature and extent of personnel work now being performed in the state.

Employment Methods

Consistent weight is attached to the interview in the selection process and industry, but many employers rank tests and physical examinations in an extent in their ratings that is considerably less significant.

In spite of these general differences of ratings, employers and companies send their representatives to State College to interview prospective graduates, these men, employing mostly sales people, disagree greatly on the qualities necessary for success as reflected by their ratings of applicants. No business of employees in Mississippi is predominantly determined by the interview. Of the 169 returns received, 161 employers stated that they always interview applicants. The largest number of firms using tests of any type was forty. The six largest firms responding give more weight to tests than to the interview in hiring.

Although interviews often do not reveal the information desired, the selection of workers by the use of tests is a much ignored question. Even this question is still a matter of controversy, but it may still be said that they cannot be relied on too extensively unless they have been designed and checked especially for the particular job. The more conservative consider them of more value in determining a minimum below which the applicant has little or no chance of success, less than for rating the relative merits of those applicants whose scores are high. They do eliminate the bluffers; and trade and aptitude tests have been quite scientifically designed so that their results are quite reliable.

The minimum advantages claimed for the use of physical examinations are that they detect communicable diseases and eliminate the physically unfit. By hiring only healthy workers who are physically fitted for the position they are expected to do, efficiency and production are increased, absenteeism is decreased, the number of accidents is lessened. Periodic examinations may be given to detect impending disorders and to keep the force physically fit. Less than one third of the firms reporting indicated that they give physical examinations to new employees, workers and many of those are in the manufacturing field where examinations are frequently required by law. The questionnaire was not designed to determine whether or not periodic checkups were made.

Wage Payment Plans and Wage Determinations

One hundred twenty-seven employers indicated that they pay their workers on the basis of time worked, the amount produced determines the wage premium and a combination of time worked and production is used by 100. Twenty-five employers stated that they use two or more of the above methods of payment. Twenty did not answer the wage question.

The most important factor influencing the amount of wages paid is the "Prevailing Wage Rate" which is in effect, the Federal Wage and Hour Law. Twenty

companies stated specifically that they pay the minimum wages required by it. Personal qualifications which most strongly effect wage rates are education and personality traits. Various other factors affecting rates are danger of accidents, labor supply, and danger of occupational disease as evidenced by table II.

Only seventeen of the firms reporting indicated that they had made a detailed study of the job characteristics, and five of these were larger employers who are doing primarily interstate business. Most authorities agree that wages cannot be set scientifically in industry without careful job analysis yet only 21 firms reported that wages are set by rule of thumb though they have not made a scientific study of the various jobs to be performed in their particular firms. One hundred forty inform their employees of their wage payment and promotion policies when they are hired and 45 keep cumulative records for promotional purposes.

TABLE II
FACTORS USED BY 169 REPORTING FIRMS IN ESTABLISHING WAGE RATES

TYPE OF BUSINESS	TOTAL FIRMS	JOB ANALYSIS	DANGER OF ACCIDENT	DANGER OF DISEASE	MENTAL EFFORT	EDUCATION NEEDED	PERSONALITY	LABOR SUPPLY	PREVAILING WAGE RATES	WAGES SET BY RULE OF THUMB
Manufacturing	40	7	9	3	22	18	11	8	29	3
Manufacturing, Wholesaling & Retailing; also Manufacture & Wholesale	45	3	5	2	15	12	10	2	39	10
Wholesaling; and Wholesaling and Retailing	21	1	1	1	1	8	7	0	9	4
Retailing	28	3	0	1	14	13	13	0	13	1
Financial Service	8	0	0		3	3	2	0	2	0
Public Utilities	8	2	3	1	3	3	3	1	4	1
Miscellaneous	19	1	3	1	6	5	3	3	10	2
Total	169	17	21	9	73	62	59	14	106	21

Education and Labor Turnover

THROUGHOUT the country employee training is becoming an integral part of the personnel program. It pays dividends. The employer benefits from decreases in labor turnover; the reduction in the amount of spoilage in materials and wear on machines; the reduction in accidents; and the increases in efficiency and the cultivation of cordial relations which grow out of the program. Managerial talent comes largely from company trained men. Any program which raises the level of production and increases the workers income is to be commended. It is known that the efficient worker is happier in his work, has more self respect, and is worth more to the community since he will more readily become a part of it. To that extent he is a better citizen and less likely to be concerned about shifting about.

Mississippi employers must furnish this type of education as the southern worker has had little opportunity to get either industrial experience or training in the past. Mississippi employers are affording this opportunity for training in various ways.

Twenty-four cooperate with local night schools in furnishing opportunities for further education on the part of their employees. Of the 169 returns received, 76 furnish apprentice training of some kind. Under "Other Methods" the following are typical of the listings:

1. American Institute of Banking courses.
2. Sales training courses.
3. Correspondence School Training encouraged.
4. Trade papers and magazines.
5. Instruction by teachers while on the job.
6. Regular training courses for salesmen put out by parent company.
7. Weekly employee training meetings.

The most of the apprentice training is done in firms where the manufacturing process is involved. Of the 85 concerns which do some manufacturing, 46 have some form of apprentice training. Eight retailers stated that they are doing some work in the apprentice training field. Of the 169 returns received, 151 stated that they employ people who are not high school graduates.

It is commonly known that labor turnover is highest among unskilled workers. The lack of special training, however, is only one of the many causes. While Mississippi employers are affording training facilities they have done little to discover the costs and presumably the causes of labor turnover. Authorities state that each replacement costs the employer between \$8.00 and \$240, the exact amount being dependent upon the degree of skill necessary to handle the job. It seems, therefore, that a more careful selection of employees is necessary in the first instance to insure the success of the education and stabilization program. It is through a careful analysis of the causes of labor turnover that undisclosed facts are brought to light concerning its costs. On the basis of returns received, only 29 of the 169 firms have made any attempts to determine the costs of labor turnover. The following comments are typical of the ones received:

1. Labor turnover costs us about \$3000 per year. (This firm has about 475 employees.)
2. Special study and report; turnover expensive; strong effort to keep it down.
3. No concrete results other than the fact that it is poor economy to turn labor over too much. Training men for even common labor jobs is expensive.
4. Loss found amount not known.
5. \$45,441.25 for 84 knitters.
6. We find it very expensive and try to eliminate it as far as possible.
7. Shows losses and gains in the labor we hire.

Safety, Housing, Stabilization

SEVENTY-FIVE reporting firms stated that they attempt to cause their employees to become safety conscious through the use of first aid meetings or other means. Purely manufacturing firms lead the list with 23 expending some effort in the field.

Sixteen firms cooperate with their employees in solving their housing problems. Some typical comments received on this point are as follows:

1. We furnish houses for our key men.
2. We help employees who show initiative to become home owners.
3. We have houses to rent to employees.
4. Houses are furnished all employees.
5. Own some houses, occasionally assist employees in securing housing.
6. Borrowed money to let employees build homes.
7. We build houses and rent them to employees as the demand arises.

Fifty-four returns were received from business concerns which stated that their business is seasonal in nature. Of these 21 are taking definite steps to eliminate the seasonal effects and to furnish as steady employment as possible. The following comments are indicative of some of the steps being taken:

1. Store up for slack seasons.
2. Arrange vacations to come at slack seasons.
3. Do repair work during slack seasons and reduce work week to four or five days.
4. Try to place in other industries.
5. Work prorated to last whole year.
6. Split employees' work so that all may earn a living.
7. We train workers to do other work when their particular work is temporarily slack.

An ice company added a meat curing plant; a local utility reworked its system and changed meters, et cetera, in slack seasons; a creamery used the winter period for repairing and repainting the plant; another company puts its workers at odd jobs during the off season, and another company states that its business is export so it can store during slack seasons. Such plans reduce labor turnover, tend to keep the organization intact and consequently avoid or reduce waste.

Apparently Mississippi industry is quite democratic in that 62 firms stated that they encourage employee participation in determining company internal policies. Thirty-three support recreational programs for their employees.

Conclusions

PERSONNEL work in Mississippi is of recent origin, i.e. one-third of the total departments reported have been in existence five years or less and the median age of the total included in the study was ten years. Every employer is in fact engaged in personnel activities; he does not think of himself as a personnel man, however, because the work occupies such a small part of his time. Nevertheless, labor must be hired and maintained under conditions which are mutually harmonious and advantageous to both the employer and employee. The more skilled the employer is in the art of dealing with labor, the greater will be the return received for the wages paid. The significant fact is that the responsibilities increase as the firms capital investment becomes larger and as the number of employees increases, hence, the increased emphasis on personnel work and the creation of specialized departments to handle it.

Psychiatrists Tell us, in Order to Get Best Results, They Prefer Observing Subjects in Their Natural Environments. Moving a Testee from a Written to a Practical Test Increases his Spontaneity, Freedom of Movement and Cheerfulness.

Improving Practical Tests

By L. B. TRAVERS

Board of Education
Los Angeles, Cal.

A POSSIBLE next step in selection procedure will be to observe, evaluate, and record the personal characteristics of testees during practical tests. Why and how this evaluating of personal characteristics should be done at the time of the practical, rather than at the interview part of the examination is the subject of this article.

Greater Freedom and Cheerfulness

UNDER present procedures personnel people may be overlooking a means whereby the personal characteristics of testees may be more reliably evaluated by taking advantage of the manner in which they reveal these under actual working conditions. Nothing new is claimed except the thought that we have been overlooking the fact that personal characteristics can be evaluated other than across a table. The results of evaluating personal characteristics at the time of a practical test are more reliable, because the technique more nearly approaches the "factor of performance" method. The rater perceives something, records, and evaluates it. For instance, the completed work instead of being clean, may be dirty. The sample gives evidence, the rater records what he sees, and evaluates it accordingly.

One who has administered written examinations, and then followed the testees through the practical test could not easily overlook the fact that there were more smiles at the practical than at the written. If he has administered a written test, observed actions at that time, and also at the time of the practical test, he will surely

have seen a great difference in the freedom of movement, attitude and cheerfulness displayed. This is particularly true of tradesmen such as carpenters, plasterers, plumbers and the other trades. It is also true that testees are generally more serious minded during oral interviews than at practical tests. Psychiatrists tell us, in order to get best results, they prefer observing subjects in their natural environments. From a psychological standpoint, an examination technician knows that moving a testee from a written to a practical test affects his spontaneity to the extent that he displays greater freedom of movement and cheerfulness.

Small Groups Best

THE evaluation of personal characteristics at the time of a practical test is more easily done where testees are being tested in small groups, say from five to ten, for a period of thirty minutes or more, rather than when they are being tested singly in a series of events of a few minutes duration.

There is much "overlapping" of the practical test and the oral interview which, in many examinations, warrants administering them at the same time and place. For instance the personal characteristics, carefulness, attitude, ability to follow directions, self-confidence, and many others are often displayed in the practical test, and also in the oral interview. At first glance this does not seem to be true, but when we compare the major parts of a practical test such as: Manner of Approach; Procedure, Finished Product, Tools and Condition of Same, Conduct, and Attitude, we clearly see the possibility of the personal characteristics, carefulness, self-confidence, cheerfulness, accuracy, ability to follow directions, being displayed. In order to illustrate how such a practical test may be held we may take as an example the classification of Carpenter. Two sheets are used. They are labeled "Work Sheet" and "Rating Sheet." The work sheet which gives the testee all the necessary working details and directions, is used by him and turned in together with the completed articles at the end of the test. The Rating Sheet is retained by the rater throughout the examination.

Routine Procedure

THE routine procedure is about the same as for most practical tests:

1. Give preliminary instructions to testees as to intent and purpose of practical. (Carpenters are tested in groups of five and ten.)
2. Tell them where to find material and supplies.
3. Hand them their work sheets, explaining anything which may be necessary. (See Form #1.)
4. Tell them what to do when they have completed. (Including placing of identification number on each piece of completed work.)
5. Assign testees to stations and start.

The raters used in this type of a practical-oral test should be not less than four

IMPROVING PRACTICAL TESTS

in number. Two should be thoroughly experienced in the actual work of the position. The other two should be well trained in evaluating personal characteristics. Some personal characteristics may come from the activities or movements of the testee and some from the completed work. Raters experienced in the work will record certain movements as indicative of desirable or undesirable workmanship, and the personal characteristics raters will look for and evaluate things which are easily detected by experienced oral raters.

The raters immediately start to work on their Rating Sheets, (see Form I, below). They observe the tool kits of the testees, and make evaluations accordingly. It is interesting to note that this item, *Tools and Condition of Same*, has its carry-over into evaluation of personal characteristics under the heading of

FORM I RATING SHEET

PRACTICAL ORAL TOP CARPENTER

Name _____

Date _____

Practical

Tools and condition of same

- ☐ Kit of tools
- ☐ Upkeep of tools
- ☐ _____

- ☐ Placement of tools in tool box
- ☐ Care of tools when using
- ☐ _____

Remarks _____

Manner of approach, procedure

- ☐ Laying out work
- ☐ Method of procedure
- ☐ _____

- ☐ Confidence
- ☐ Skill
- ☐ _____

Remarks _____

Finished product

- ☐ Measurements
- ☐ Cleanliness
- ☐ _____

- ☐ Workmanship
- ☐ _____

Remarks _____

Conduct, attitude, etc. during practice

- ☐ Ability to follow or read B P or directions
- ☐ Assuming blame for own shortcomings
- ☐ Minding own business
- ☐ _____

- ☐ Dress for practical
- ☐ _____

Remarks: _____

Oral

Personal characteristics for job:

- ☐ Carefulness
- ☐ Attitude toward examination
- ☐ Orderliness
- ☐ Ability to follow oral directions
- ☐ Self-confidence
- ☐ Cheerfulness
- ☐ Accuracy
- ☐ Endorsement
- ☐ _____

Remarks _____

Rating scale Low 1 2 3 4 5 6 7 8 9 10 High
(Indicate score on each item by placing figure in square as shown in example - Raters: _____)

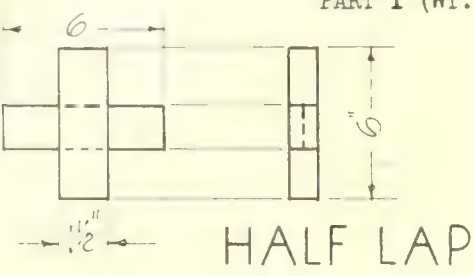
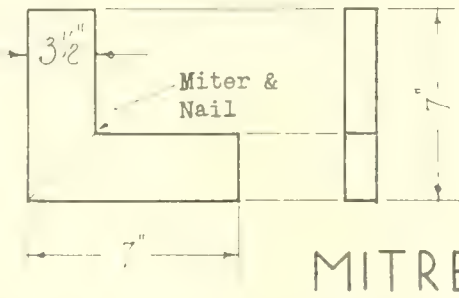
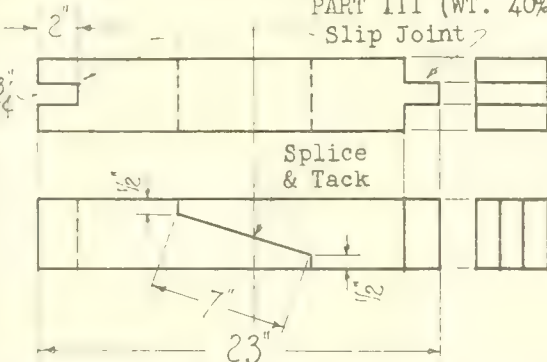
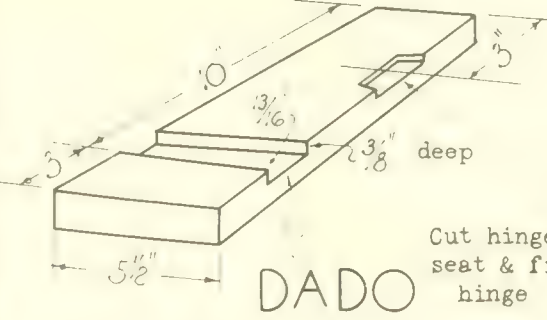
FORM II
WORK SHEET FOR CARPENTER PRACTICAL TEST

Name _____

Date _____

Last name _____

First name _____

PARTS OF TEST	REMARKS
<p style="text-align: center;">PART I (WT. 30%)</p>  <p style="text-align: center; font-size: 1.5em;">HALF LAP</p>	
<p style="text-align: center;">PART II (WT. 10%)</p>  <p style="text-align: center; font-size: 1.5em;">MITRE</p>	
<p style="text-align: center;">PART III (WT. 40%)</p> <p style="text-align: center;">Slip Joint</p>  <p style="text-align: center; font-size: 1.5em;">Slip Joint</p>	
<p style="text-align: center;">PART IV (WT. 20%)</p>  <p style="text-align: center; font-size: 1.5em;">DADO</p> <p style="text-align: right;">Cut hinge seat & fit hinge</p>	

Orderliness. This means, that, in order to make the practical-oral effective, the raters must cooperate. That is to say, should a practical rater see a testee place a tool in a position so as to endanger its cutting edge, he should tell the personal character rater that this is indicative of *Carelessness*. This, then is a clue for him to look for other evidence of *Carelessness*, *Orderliness* or related characteristics. As the test proceeds they mark as many items as possible. However, it is necessary for them to have the completed articles in order to evaluate all items. For instance, some remarks may be made under *Finished Product*, but they must see the completed article or articles in order to determine whether they are as they should be. In order to determine further the testees personal characteristics fitness for the job, the personal characteristics raters may receive the completed work and take advantage of this opportunity of talking with him.

Completed Work Judged

AFTER the practical test, indications of carelessness, ability to follow directions, and other characteristics may be revealed by the testee in his completed work. His work may not be clean or may have hammer marks on it. Closeness of dimensions would indicate accuracy.

The work sheet (Form II, page 132) is intended to serve the purpose of telling the testee what is wanted in the way of completed articles. It may include also information as to time allotted to complete each article, directions to turn in to rater articles together with work sheet, etc. The space for "remarks" when filled in by the raters support their evaluation of the testees workmanship on the completed articles.

An Employer often Faces an Arbitration for the First Time, but Finds Himself Up Against a Union which Has Had Previous Experience with Arbitration. He is Consequently at a Disadvantage, which He May be Helped to Overcome by Studies of Past Cases.

Arbitration. I. Getting *a* Just Award

BY CHARLES S. SLOCOMBE

Personnel Research Federation
New York, N. Y.

How can an employer know what influence the material he presents, in arbitration briefs and hearings, has upon the award or decision handed down by an arbitrator, or arbitration board?

Arbitrators habitually mark and make marginal notes on briefs and transcripts of hearings—thus indicating the points made in which they are interested, and which they think are important, or which they question.

Minimum Essentials

THUS the proof of the pudding is in the eating. We can determine, from a study of the papers relating to past arbitration cases, and the notes thereon, supplemented by discussion with arbitrators, and counsel for employers and labor, represented in these cases, at least the minimum essentials that should be presented to an arbitrator.

By so doing, we not only facilitate the work of the arbitrator, who endeavors to make a just decision, but go far towards ensuring that the decision shall be fair.

Below we analyse the briefs, hearings and decision of an arbitration board to exemplify how such analyses of arbitrations are made, what should be included in presentations before arbitrators, that are often not included, particularly by employers, the influence of presentations upon an arbitration board, and the need, particularly on the part of employers, of giving much more attention to the subject of arbitration, much more care in selecting their counsel, in backing him up, in supplying him with facts, and in conducting negotiations leading up to the arbitration.

The lessons which the case study described in Part II (page 139) points up, for the benefit of companies, associations, counsel and arbitrators in future negotiations and arbitrations are as follows:

When Refusal to Negotiate Advisable

IF, IN negotiations under an agreement containing a no-strike, and an arbitration clause, the union presents unreasonable demands for wage increases, vacations, overtime, etc.—things which cost money—the employer should refuse to discuss them at all, but insist that they be determined by an arbitrator.

It was obvious from the beginning of the case here considered that with a union demand totalling a 60% increase, employers by moving up to meet the demand could not possibly arrive at a reasonable compromise. Statistical figures, presented by the union, and unchallenged by employers, indicated that only a 10% increase was justified. The employers would have been wise therefore to have refused to discuss the union demand, refused to make any attempt to meet it, but put the entire matter up to the arbitration board, making sure that it understood the facts of the case.

In negotiations, mediation or arbitration never use the "Inability to Pay More" argument, unless the employer is willing to substantiate it fully with appropriate financial records. In the absence of such employers' figures, the union can always by various means get access to financial records of companies, as in this case, and place them before the arbitrator in a way that throws doubt on the sincerity and honesty of the employers.

Always Anticipate Possible Arbitration

WAGE and hour negotiations today should always be conducted and planned, with the thought in mind, that the case may ultimately have to go before an outside mediator or arbitrator. Great care should therefore be exercised in offering concessions, and the nature and extent of these should, if possible, be excluded from evidence in subsequent arbitration.

If this material cannot be excluded, then the employer should make absolutely sure that the arbitrator is given facts, which will enable him to judge accurately the extent to which employer's concessions, offered in the interest of peace, during negotiations, are an improvement and an increase over previous conditions under agreement.

When a union presents figures, purporting to come from some official government source, or from union records, or any other place, the employer should very carefully check the source to see that the union figures are what the union says they are. They should bring the results of their check to the attention of the arbitrator.

Such figures should be carefully analysed to see their implications, and the false effect they may have upon the mind of the arbitrator. Rebuttal should point out

possible false implications to the arbitrator, and should where necessary, offset union contentions, by sets of figures prepared by the employer's side.

Where the union presents data referring to wages or business conditions in industries, areas or occupations not strictly comparable to the industry or company under arbitration, this fact should be pointed out to the arbitrator, as irrelevant, and he be specifically asked to omit it from his consideration.

Calculate Cost of Supplemental Items

THE employer should very carefully calculate the costs of wage increases, raising the minimum to different levels, shortening of hours, granting holidays with pay, vacations, increased overtime allowance, commissions, sick benefits, or leave, perquisites, etc.

Each of these items should be set out separately so that the arbitrator may know their annual cost, if he grants any or all of them, and the amount they represent as a percentage of payroll or labor cost.

Almost never is this done, and we have seen case after case in which the arbitrator has apparently thought he was limiting a wage increase award, but has almost doubled the labor cost to the employer, by giving holidays, vacations, sick leave with pay, etc., because the employers have failed to show the labor cost of these, perhaps desirable, social benefits to employees.

Our theory is that a company or an industry can stand only so much—which may be determined by a fairminded arbitrator. He must therefore be shown, in detail, and with unquestionable figures, the cost of each concession he may or may not make to the union.

Look for Trickiness

EVERY page and table in the union's brief, should be carefully scrutinized to discover any trickiness that may be present, in the presentation of figures, such as the use of "medians" as against "averages," and other statistical misleaders, and verbal deductions from figures, that may be regarded as sophistry and distortion. These should be brought to the attention of the arbitrator.

The employer's brief should be absolutely free of trickiness and distortion—for if this is discovered, and pointed out by the union to the arbitrator, as it almost inevitably will be—this will throw discredit and doubt, in the arbitrator's mind, upon the whole employer presentation.

The employer's brief, in wage and hours cases, should contain all possible relevant statistical material. This does not necessarily apply in grievance, or other cases.

In the case discussed below, the employer's brief contained a minimum of factual material, but much wordy argument, such as might be used by an attorney in a criminal law case. The union threw in everything but the kitchen sink, and sub-

stantiated all their arguments with figures and tables, relevant and irrelevant. As the arbitrator was an economist, who traditionally feasts on figures, it was no wonder that he used the union brief, mainly, in arriving at a decision.

The employer should check and double check every statistical figure, point and argument made by the union, and see that it is *directly* answered, in rebuttal.

Unions contend, though all arbitrators do not agree, that points made by one side, and not answered by the other, should be taken by the arbitrator as true fact.

Know Psychology of Arbitrator

IT is in no sense tricky to recommend that employers make sure that their presentation is such that it will be receptive to the arbitrator before whom they are appearing. Arbitrators differ—one may be strictly judicial in his point of view, another may be an economist, another may be a social theorist—that does not mean that they will lean one way or the other, in handing down their decisions. But it does mean that employers should, as unions do, make sure that their presentations, without being distorted as to stated facts, are in accord with the known way of thinking of the particular arbitrator they are before.

If, in order to do this, it would seem that trickiness would have to be resorted to, the employer should avoid this, by pointing out, in his brief and evidence, to the arbitrator, the real base upon which the case should be judged.

Practical Tryout of These Ideas

FINALLY, having selected the right arbitrator, make sure that he knows how to analyse and evaluate wage and hour statistics, and evidence. If necessary the employer should be sure to include in his brief as many of the above points as are deemed necessary.

It may be mentioned that the material in this article was shown to, and discussed with an arbitrator recently. He learned so much from it, as to how to analyse wage and hour figures, that in a subsequent arbitration; with the employers unwilling to open their books for inspection, he ruled that the "Inability to Pay More" argument was inadmissible as evidence; and that the willingness of the employer to grant concessions, in negotiations leading up to arbitration, was also excluded from evidence.

He finally handed down a decision that gave the union $2\frac{1}{2}$ cents an hour *less* than the employers had, as he later learned, actually offered the union in negotiations, leading up to the arbitration.

Arbitration, as we see it from a study of many cases, discussions with arbitrators, and counsel for both employers and unions, is an excellent means of arriving at a fair decision in matters that may be in dispute between employers and employees, and which have been found to be not susceptible to agreement, through negotiation or mediation.

It should not be allowed to fall into disrepute, and other means such as strikes or government taking over plants, used in its place, because of an erroneous assumption by either party, that the decisions of arbitrators are compromises, unrelated to the merits of the case of either side.

No Employer Should Fear Arbitration

THIS is not true, for the evidence from a study of many cases, the presentations of unions and employers, and the pencil-markings of arbitrators, is that arbitrators sincerely try to arrive at just decisions, which may give a union or an employer all, something or nothing of what is asked.

The arbitrator's decision is determined by the facts placed before him, and nothing else.

No employer or union should therefore fear arbitration, if he is confident that he or his counsel can present all the facts to the arbitrator, in an honest manner, and answer in full all seemingly unfavorable material presented by the other side.

Arbitration. II.

An Unfavorable Award

PARTIES in the arbitration were a trade association of employers and a union. Both were represented by counsel, the employers by an experienced attorney, the union by an experienced labor economist.

Union recognition had been in effect since 1901. The last agreement had been in effect for three years. At the end of this period, under terms of the agreement, the union asked that the agreement be opened for negotiation of new wages, hours and working conditions.

Arbitrator Relies on Union Figures

NEGOTIATIONS had proceeded for six months, and agreement reached on many points, but union members were becoming restless because of a failure to agree upon minimum wage rates, hours, vacations, etc., after so long a time. There was a no-strike, no-lockout clause, and an arbitration clause in the agreement, so arbitration was resorted to, to settle these matters.

The pencil markings and marginal notes of the arbitrator indicate that, in coming to a decision he relied almost entirely, except upon the question of hours, upon the presentation of the union, in the arbitration proceedings.

He thus handed down a decision much more favorable to the employees than he intended to, and which was unjustified by the circumstances, (business conditions, cost of living, prevailing rates, etc.). But he obviously did so because there was so little, in the presentation of the employers, upon which he could rely.

In the negotiations leading up to the arbitration, the employers had gone some way in meeting the union's demands, that is in the amount of wage increase they would concede, holidays with pay, etc.

These were shown in the agreement to arbitrate. So that the employers permitted the arbitrator to be faced with the union demands, the raises and improvements in working conditions which the employers were willing to give, and based their case upon their financial inability to give further concessions demanded by the union.

They did not at any time stress that what they were willing to give now was a substantial advance over the current rates, under the agreement in effect, nor ask the arbitrator to contrast current wage rates, cost of living and business conditions, with those existing at the time of the negotiated agreement three years before, and ask him to base his award upon, and be proportionate to, the advances in these factors, which had taken place.

They based their entire case upon their argument that business conditions and prospects, being what they were, the industry was unable to bear a greater increase in wages than they had offered the union. This might have been a sound base, had it been true, and had the employers been willing to submit their annual reports or books as evidence. But this they were unwilling to do.

Are Negotiation Concessions Admissible Evidence

Two important points, for the guidance of employers, in negotiation and arbitration proceedings, are shown here.

The first is, "Should an employer, in arbitration proceedings, allow there to be introduced as evidence, a statement as to what he had been willing to agree to, in negotiations?"

In some cases arbitrators allow it. In others they do not.

Whether any hard and fast line can be drawn about this we do not know. It seems distinctly inadvisable to allow such admittance. But if it is admitted, then the employer should safeguard himself by making sure that the arbitrator is thoroughly aware of the distance which the employer has been willing to go, beyond the current agreement.

For instance, in the case under consideration, the arbitration agreement showed, UNION PROPOSALS in one column, and beside it, EMPLOYER COUNTER PROPOSALS. The latter showed the concessions agreed to in negotiations leading up to the arbitration.

If these latter were to be shown, the employer should obviously have shown:

- Union proposal
- Employer counter-proposal
- Rates under current agreement
- Percentage that union proposal is over current rates
- Percentage that present employer concession is over current rates.

This would point up to the arbitrator the fact that the employer was not unreasonable in trying to meet demands of the union, and give the arbitrator a picture of the extent of improvement in wages and working conditions, which his award might bring about.

This, if supplemented by statistics as to business conditions, cost of living, prevailing rates, etc., would give the arbitrator a good base for his award.

The "Inability to Pay More" Argument

THE second important question raised is the use of the "Inability to Pay More" argument in arbitration and negotiation cases. As we judge the reactions of arbitrators, we would say that this is the weakest and poorest base upon which to rely. As we see it they feel, rightly or wrongly: that facts submitted by employers

on the point, generally are not convincing; that, if an industry is under consideration, marginal units in that industry affect the figures, and cannot be allowed to keep the standard of living of all workers in the industry down; that if the award granting a wage increase puts marginal units out of business so much the better for the industry; and that despite the arguments of employers on the matter, they will find some way of paying the extra wage cost, or passing it on.

In the case of a company, this is a different matter, for a single company may be really unable to meet competition, with increased wage costs.

Disclosure of Financial Books

CASES are on record in which a full disclosure of financial status has resisted any wage increase in the award of an arbitrator.

But whether it be an industry or company, it should be an infallible rule, that the "Inability to Pay More" argument will not be used, unless the company or industry is willing to open its full financial statements to inspection by the arbitrator.

In the case under consideration, while using the inability to pay argument as the main base, in resisting demands of the union, before the arbitrator, the employers, or many of them, refused to supply any figures as to their financial status. Out of over 100 companies concerned, only 9 submitted figures to an accountant for making into a consolidated statement. Two of these were in the process of becoming bankrupt.

The Union, of course, insisted that they were not representative concerns, and that the figures presented were inaccurate for the companies anyway. They threw doubt on all the figures, by showing an arithmetical inaccuracy in one addition of \$7000. They forced the accountant to refuse to swear to the accuracy of the figures he presented.

The Union pointed out that according to the arbitration agreement, "each of the parties hereto agrees to produce before the Board any and all books, records, or other evidence they may possess. . . when necessary to fully present . . . facts which may be partially presented." It did not, however, insist on the employers presenting the books of even these nine concerns, because it presented the figures for thirty-two concerns, which were prospering, and confidentially gave to the arbitrator, the names of the concerns, and the sources of their information.

Arbitrator Queries Employer's Statements

THERE is evidence that the arbitrator was duly or unduly influenced by the union presentation in this matter, which was the main base of the employer's argument against undue wage increases, in the fact that there were pencilled underlinings of

the union's figures regarding it in the briefs, but no marks, other than queries, on the 15 pages of argument submitted by the employers.

It is not known what pressure the union exerted, during negotiations leading up to this arbitration. But in so far as there was a no-strike clause in the agreement, and an arbitration clause, the pressure must obviously have been limited by these clauses.

Union Demanded 60% Increase

UNION demands, if met in full, would have meant, for most employees, a wage increase of no less than 60%. This was absurd, and should have led the employers to refuse to discuss the matter, but negotiate all matters not included under the heads, wages, hours and vacations, etc., which involved extra cost to the employer, and insist that these matters be referred to the arbitration board.

Instead of which, the employers offered concessions to the union amounting, as far as we can calculate, to a 21% increase in labor cost. This as will be shown below, was more than double the increase which might have been justified, by increases in cost of living, or prevailing rates, or improvement in business conditions—as determined by statistics presented in *the union briefs*.

The employers would not go beyond this entirely unjustified offer of a 21% increase, to meet the union's demand for a 60% increase, and so the matter went to arbitration. Unwisely, we think, the employers allowed the arbitrator to be presented with the union demands or proposals, as contrasted with the offer of the employers—all without reference to rates under the current agreement. In fact the current agreement was presented to the arbitrator by the union, and not by the employers.

Case Prejudiced from Beginning

SO THE employers went into arbitration with the case prejudiced against them, from the beginning. There is no evidence in the briefs or hearings, or in the pencil markings of the arbitrator, that he was aware of the fact that the union was demanding an unconscionable raise of 60%, or that the employers had met this with an offer of 21% increase.

The arbitrator, not having these matters *pointed out* to him by the employers, and apparently, from his pencilled calculations, on unchallenged material, as to current weekly earnings, supplied by the union—no such data was presented by employers, so the union material was all he had to work on—handed down a decision, which as near as we can calculate, gave most employees a 27% raise.

This was over twice that justified by increase in cost of living, prevailing rates, or improvement in business conditions—as shown by statistics in the union brief. But it is evident, from his pencil markings, that the arbitrator held as close to the employers' original offer in negotiations, as he could.

No question of starvation wages was involved, for the current base rate was \$32 a week, or \$1560 per year, on steady jobs.

We may now perhaps, summarize the oversights or omissions in the employer's presentations, which led to this award. The Union's case was as weak as water. They actually presented figures, which did not justify more than a 10% increase. Yet the employers did not point this out to the arbitrator, and so were stuck with a 27% increase.

Employers Should Challenge Union Figures

THE union presented a table of figures purporting to show the distribution of average weekly earnings of employees. This was well marked up by the arbitrator. The employers did not in their rebuttal, challenge these figures, ask where they came from, whether they referred to a good week or a bad week, whether they were from the records or statements of a good or poor group of employees, or whether they were in fact fictitious.

The employers did not supply the arbitrator with a set of weekly earnings, drawn from their own payrolls, and as near as possible all inclusive, rather than selected, upon which he could make his calculations, and arrive at a just decision as to any wage increase that might have been justified.

In this table the union showed that the 'median' earnings were \$32, thus tending to show that their wages were low. A calculation of the figures shows that their 'average' earnings were \$34—not so low.

Yet the employers allowed this distortion of the facts to pass without pointing it out to the arbitrator.

The union switched from 'medians' to 'averages' backwards and forwards, all through their presentation, yet neither the employers, nor the arbitrator, seemed to be aware of the trickiness of the union tactics.

The union presented Department of Labor figures showing cost of living increase, since the last wage negotiation, from 125.9 to 135.9. Actually this is a 7.93% increase. But the employers, who in negotiations, had offered a 21% increase, did not point this out to the arbitrator.

Prevailing Rate Figures not Analyzed

THE arbitrator asked the union for figures showing prevailing rates, for similar occupations in other industries, and for the increases in rates which had taken place, during the three years under consideration.

The union obliged, with a set of tables purporting to show rates in other industries. The employers did not challenge these figures, as to whether they were maximum or minimum figures, whether there were other concessions, such as vacation and holiday pay, commissions, perquisites, sick benefits, etc. They allowed the

arbitrator to assume that the figures, presented by the union, were a true picture of the prevailing rate situation.

Employers made no analysis of these prevailing rates, or at any rate did not point out the results of such an analysis to the arbitrator.

Actually, these prevailing rate figures, supplied by the union, on analysis, show that the increase in rates which had taken place over the three years, amounted on the average to only 8.3%.

Further analysis shows that in 30% of the cases the prevailing rates, recently negotiated, were below the rates now offered by the present employers, in negotiation. And in only 10% of the industries were the rates as high as those demanded by the union.

None of these facts were pointed out to the arbitrator, by the employers—or by the union.

Chamber of Commerce Figures not Analyzed

THE union presented figures compiled by the local Chamber of Commerce, showing improvement in business conditions, which is related to ability to pay, cost of living, etc. These showed a general upturn of 10%, with individual items, such as department store sales up 9.6%, employment 7.3%, payrolls 10.7%.

These figures were also passed unchallenged by employers, though it should be a cardinal principle, that figures presented by unions, should always be checked by employers, and if found incorrect that pointed out to the arbitrator, or if found correct, acknowledged as such.

But, assuming these figures to be correct, it is obvious that they were, if analysed, and presented to the arbitrator, an excellent argument upon which to base the employer's contention that the amount of wage increase that might be granted in the award should be limited.

But they were not so analysed or presented, and the arbitrator was left without guidance by the employers. Actually on these three counts, cost of living, prevailing rates, and business conditions, there was no warrant for a wage increase greater than 10%. Yet the union asked for a 60% increase, the employers, in negotiation had offered 21%, and the arbitrator gave 27%.

Standard of Living Should Improve

IT is not suggested that we, or employers, think that wage increases should be entirely geared to cost of living, or some other such base as might freeze the living standards of workers, but we do think that improvements in the standard of living of American workers should be progressive within reason.

The fact that these employers, in negotiations offered a 21% increase, when indices of cost of living, prevailing rates, and business conditions warranted an

increase of not more than 10%, indicates their willingness to help to raise the standard of living of their workers.

It is highly probable that the employers would have had a much better chance of holding down this arbitration award to what they had consented to, in negotiations, had they presented these facts in their briefs, rather than relying on the "Inability to Pay More" argument.

Cost of Supplemental Items

EMPLOYERS failed to spell out, in figures, the cost of supplemental items the union was demanding, and which, in part, the employers in negotiations had agreed to.

For instance, three more days of holidays with pay were agreed to, and awarded. The employers did not point out to the arbitrator that this actually meant a 1% increase in pay and labor costs.

Employers did not point out to the arbitrator that the one week's vacation with pay, after one year of service, which the union asked for, and was granted, added another 2%.

Increased commissions, agreed to by employers in negotiations, and awarded, accounted for at least another 1%.

Goods and services asked to be provided employees free, or at cost, actually raised the weekly receipts of employees another 5%.

We estimate that these and other items increased the annual labor cost to the employer, not less than 10%. This was in addition to the 16.6% increase in direct wages, employers had agreed to concede in negotiations, and which they allowed the arbitrator to have presented to him.

They not only did not point out to arbitrator the magnitude of the direct raise they had offered, but failed to point out to him the cost to the industry, of these supplemental items.

In so far as these supplemental items might have been regarded as legitimate awards to employees, in view of current social theories, as to vacations, holidays, etc., the employers should certainly have pointed out to the arbitrator, the cost of these items, so that he might have realized it, and reduced the amount of his direct base wage award, to keep the total amount of his award of increased income to employees more closely in line with the increase in cost of living, prevailing rates and business conditions.

Hour Case Well Presented

THE arguments of the employers against a reduction of hours, for the industry, demanded by the union, were so cogent, clear and to the point, that they were heavily underscored by the arbitrator, and obviously convinced him.

Hence no reduction in hours was granted.

The union arguments on this point were generally along lines of social theory as to the desirability of short hours, with little relation to the condition of the industry. Hence they were passed over by the arbitrator.

From the above analysis of this case, in which the union was apparently awarded an unwarranted increase in wages by the arbitrator, we deduce that this happened because of faulty negotiation and arbitration presentations by the employers and their counsel. It was, we think, not due in any sense to economic pressures, or to the desire of the arbitrator to hand down a compromise decision, or to any labor leanings he might have been supposed to have.

He was, in fact, a conservative economist, and Dean of a University Business School.

A Review and Commentary on the Recent Book
"Union Policies and Industrial Management"
by Sumner H. Slichter, Published by the Brook-
ings Institution, Washington, D. C., 1941.
(Price \$3.50.)

The Economics of Union Agreements

BY SOLOMON BARKIN

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THE recent upsurge in unionism has brought almost nine million workers in the most diverse industries within the compass of labor agreements. Their status in factories, mills and places of employment has been markedly changed. They have become citizens of industry. Their conditions and terms of employment are no longer controlled solely by management's will. These are now the result of voluntary agreements negotiated between management and employees through unions. These agreements provide a law for industrial relations.

Union Policies and Industrial Management

NOT since the publication of the series of doctoral theses under the direction of Professor Jacob Hollander of Johns Hopkins University, about twenty-five years ago, have any thorough studies been made of union agreements. Some special studies of limited scope have appeared, and a number of compilations of specific types of provisions of union contracts have been printed to aid negotiators.

The first comprehensive and searching analysis and appraisal of these agreements now appears in the scholarly investigation offered by Professor Sumner H. Slichter in his recent book, *Union Policies and Industrial Management*.

It is a thoroughly documented inquiry into the policies and practices of a great number of craft and industrial unions, and a comparison with the trends now developing among industrial unions. The wealth of material presented in this volume brings one into intimate contact with the daily problems of trade unionism. While

Professor Slichter has limited his discussion to the rules and practices contained in union agreements as they affect hiring, apprenticeship, lay-offs, job assignments, technological change and types of wage payment, and the plans employed to enable union plants to meet the competition of non-union plants, he has furnished a pattern for similar studies of other aspects of labor agreements.

This is an important source book for the evolving science and practice of trade union management. It significantly inquires into the contents of such agreements, and the economic problems they create. The author suggests the need of profound and thorough consideration by both management and labor of the immediate and long run effects of the provisions incorporated in, or omitted from, these agreements.

N.L.R.B. Attitude toward Agreements

THE extraordinary increase in the number of union agreements has brought wider public interest in their contents, philosophy and economic effects. The great variety of their provisions and their extensive influence has made them significant factors in the industrial development of particular plants and industries. As they define management's, and labor's rights and limitations, and provide machinery for the resolution of differences, they are rapidly changing the nature of all relations between management and labor.

Until recently little was known of these contracts by persons other than those immediately concerned with particular agreements. The major focus of interest in labor relations has been on labor's right to organize. This effort to establish labor's right to independent unions and bona-fide collective bargaining has been so all absorbing as to preoccupy all but those actively negotiating labor agreements. For example, the National Labor Relations Board, the most prominent federal agency dealing with the problems of labor relations, has limited its interest to the conclusion that bona-fide collective bargaining can only be consummated when matters mutually agreed upon by both parties are incorporated in a collective agreement. The exact contents of such agreements is not of direct interest to the agency.

Compromise Nature of Agreements Held Unfortunate

A REALISTIC inquiry into the economic soundness of the contents of union agreements must be preceded by an inquiry into the varying forces which help to shape the policies and attitudes of the bargaining parties. Unfortunately, at present, labor agreements cannot be expected to reflect a truly consistent application of principles formulated on the basis of the long run economic effects of policies, because of the nature of our economic society and the forces controlling the prevailing attitudes of both labor and management.

A labor agreement usually represents a compromise between the desires of each of these groups. The agreement is a temporary resolution of the bargaining powers,

and a specific formulation of rules by which both agree to be governed for the term of the contract. In relatively few cases, to date, have both management and labor arrived at that degree of understanding where they are able to agree on objectives, and jointly inquire into the methods of administration which will most successfully realize their purposes. Where this state has been attained, as in the case of the men's clothing industry, decidedly constructive and enormously beneficial results have followed. Usually agreements suffer from lack of mutuality, and the limitations of industrial coverage.

A Limited Time to Live

LONG run economic considerations are difficult to incorporate into the core of trade union policy. Trade unions are, at present, limited to the task of advancing the earnings, increasing the security and improving the conditions of employment of their members. They must at all time possess the support of these members. The leaders of unions, as of all democratic institutions, are bound by the attitude and position of their members. Professor Slichter observes that "unions are composed of men who have a limited time to live and who are primarily interested therefore not in perpetuating their organization, but in obtaining within their lifetime a return on the money they pay as monthly dues."

Only in relatively few instances can union leaders initiate an independent policy without the immediate approval of their members. Their advice is on occasion rejected. Union policies are therefore bound by what the members can be convinced is in their immediate interest. Industrial unions are able by reason of the diversity of occupations to follow policies more consistent with the economics of their industry than are craft unions.

Moreover, economic considerations cannot be part of trade union programs until a union's position is guaranteed. Professor Slichter concludes that "an assured status for the union is a prerequisite of successful union-employer relations. . . . If a union does not enjoy an assured status, it dare not permit much discretion to management."

Trying to Meet the Security Problem

EVEN where a closed shop exists, unions have to consider other factors in the development of their policies. Among these are a desire to establish sufficiently high standards in union shops to attract unorganized workers, and to facilitate the unionization of these workers. Moreover, employers of organized shops seldom allow unions to gain intimate acquaintance with their business and economic problems. It is only within recent years that unions have established economic staffs which can obtain relevant economic data, regarding the industry or company.

Besides these factors, unions have always been faced with the need of meeting

the immediate ill effects of economic changes and depressions. Unions have endeavored to obtain job security, and employment, for their members. They have sought to meet the problems created by intermittent employment, technological change and business slumps, by regulating lay-offs, fostering make-work rules, and preventing or controlling technological change.

No other alternatives have been or are available to them. They have to offer some immediate protection to their members. Although they have recently acknowledged their inability to meet the problems of a changing economic society, and have acknowledged the potential benefits to be derived from technological change, they have been unable to change their resentment against them for there have been developed no concrete methods of taking care of the people affected by these changes. Unions cannot radically alter their views toward technological change, or other economic phenomena, and base their policies on the beneficial long run effects of their practices until adequate provision is made by government or industry for their members.

Present Social Security Inadequate

BEGINNING has been made during the last few years in the form of unemployment benefits and old age pensions. But these are, so far, inadequate. More encouraging are the plans being developed by the Office of Production Management to take care of "priority unemployment" through supplementary benefits, retraining, traveling allowances to new jobs, and adequate indexes for available jobs. Dismissal allowances, higher unemployment insurance benefits, larger old age pensions and similar provisions could help to liberalize trade union policies and practices still further.

Attitude of Management

ANOTHER barrier in the way of reconciling trade union policies with long run economic effects has been the attitude of some employers toward economic problems. Their views have emphasized their own individual self-interest, rather than the welfare of their industry, the persons employed therein, or the community at large. Professor Slichter states that "when management itself does not promptly translate savings of labor costs into attempts to obtain a larger volume of sales (and hence to bring jobs into the plant) unions cannot be expected to become market minded and to be interested in the relationship between labor costs and the volume of employment." He notes that "the pricing policy of a large part of American business leaves much to be desired. Until this is altered, and prices are made more responsive to changes in costs, employers cannot expect a very broad interest on the part of unions in assisting to reduce costs."

Finally it may be observed that government itself, until most recently, has not

shown any keen interest in these problems, or in the persons affected by economic change.

So long as neither business nor government will assist in aiding the victims of change, unions are unable to follow any consistent economic long run policies, which might conflict with their members' view of their immediate interest, or tend in any way to threaten their security.

Union Policies not in Best Interest of Members

IT is, therefore, not surprising that Professor Slichter has not found trade union policies and practices consistent with the long run interests of their members, as he has defined them. He has nevertheless found that the human emphasis inherent in trade union policies has resulted in many benefits. He observes that "the very fact that the workers have had an opportunity in determining their working conditions is in itself favorable to efficiency." Specifically, they have contributed to better apprenticeship systems, eliminated hiring abuses, protected older workers, extended the work life span of many men, minimized the maladjustments due to technological change and protected "workers against a multitude of abuses and managerial inefficiencies."

According to his view, the trade union practices, which he has studied suffer primarily from their failure "to fit a constantly changing world (and were) deliberately designed to maintain the status quo." He notes that the rules and practices are frequently inflexible and obsolete. These attitudes and policies stem from the realities which trade unions did face, in the past, but are no longer confronted with.

How this Can Be Remedied

ATTEMPTS at reconciling union policies with the long run economic needs of particular industries and plants and their members are discussed at considerable length. Four specific cases, those of the Cleveland women's garment industry, the railroads, the Amalgamated Clothing Workers and the Naumkeag Steam Cotton Company are described at some length.

Professor Slichter sees reasons for an immediate increase in efforts at union-management cooperation, in the existence of high cost employers, the unionization of low wage plants, the existence of non-union competition, and an increased awareness of interindustry competition.

The current defense program is establishing a firm foundation for even more extensive efforts at labor management cooperation. Controls over prices and profits, supplemented as they are by priority arrangements, are eliminating some of the suspicion which ordinarily exists between labor and management. The increased presence of labor representatives in the national councils is fixing the habit of similar cooperation in individual plants. Labor is gaining much needed acquaintance with

industrial facts. Its advice is widely solicited by government because of its overall acquaintance with each industry.

Individual employers are more and more becoming aware that current production schedules cannot be met except through active labor participation, and that net profits after taxes, must be increasingly shared with labor. Fuller cooperation is being made possible because industry is more widely recognizing labor, and giving labor unions an assured status. The federal government, moreover, is definitely planning to assume responsibility for the human victims of our changing industrial system.

A review and commentary on the recent book, "Union Policies and Industrial Management", by Sumner H. Schlichter, Published by the Brookings Institution, Washington, D. C. 1941, price \$3.50.

"Where Union Organization is New, the Problem of Educating Foremen in Collective Bargaining May be One of the Toughest Jobs the Union Has to Face." (From UAW-CIO Handbook for Shop Stewards).

Do Foremen *have* Bottlenecks?

BY WARREN C. DAVIS

Rochester, N. Y.

MANAGEMENT is in high gear, labor in second, and there are three reasons for this discrepancy in effort.

One reason stems from interest factors growing out of managerial meetings. Superintendents and their supervisors hold meetings, where problems and policies are discussed, and where much enthusiasm is generated. These same men come from these meetings charged with the desire to obtain results. In many cases the results obtained are not always gratifying. These over-zealous supervisors frequently fail to stimulate their subordinates.

Does a Supervisor Bubble?

INTEREST and cooperation do not always follow suggestions radiating from a supervisor, but they do occur when the worker is provided with knowledge similar to that which caused the supervisor to be operating in high gear. But most times workers are not given this information. Consequently, instead of bubbling with enthusiasm himself, and hoping that by some mystic means his men will understand him and act likewise, it would be far better for a supervisor to pass on information about work to be done, and the objectives of his department, as he got the information from the meeting. Thus his workers would acquire the same point of view, and the same degree of interest, that he possesses.

Another bottleneck of human initiative originates in the fact that there is still too much leadership of the hickory stick type. Supervisors frequently bluster, and sometimes bellow, about trivialities. The result of this is that the worker lives in

the fear of reprimand for something that he might do wrongly. Consequently, workers do only those things that they are sure they are right in doing, and stall around on other work where they are not sure of procedures or outcome.

Unused Worker Reserve of Initiative

THERE is a tremendous reserve of initiative and intelligence in workers that never sees fruition because of the damper put on it by spit-fire managers. If a man lives in fear of criticism and in the fear that if he did something wrongly his chances for advancement are impaired, there is a very good chance that he won't do anything, or perhaps do only enough to get by, and thus avoid exposing himself unnecessarily to criticism by using his initiative. So the worker's philosophy becomes, "Do only what you are told to do and no more". Effort and ideas flow when workers feel free from embarrassment and secure in their future.

The Ancient Art of Buck-passing

A THIRD restraining influence on effort is the policy of requiring written work orders. Of course, this policy has its good points, and should not be eliminated completely from industrial practice. However, the principal use to which these written requests should be put is that of obtaining accuracy and consistency. People's memories are limited and written orders help to avoid mistakes due to faulty memory.

But when the policy of requesting written orders is used chiefly for the purpose of attaching blame when something goes wrong, then it has a retarding effect on effort. Many workers, who are responsible for telling others when or how to proceed with the next phase of the job, would be slow to give these orders in writing if they felt that blame, in case that something went wrong, might fall back on their own shoulders.

Furthermore, it frequently happens that managers expect workers to be very punctilious about giving orders in writing, but these same managers sometimes shun the responsibility that goes with a written request. This refusal of managers to comply with a regulation which they themselves helped to make tends to destroy the worker's confidence in the justice of the system. So, again, a good policy unwisely and unjustly administered destroys confidence and initiative.

Book Reviews

HOW TO SELECT AND DIRECT THE OFFICE STAFF

By Edward A. Richards and Edward B. Rubin. New York: Harper & Bros., 1941.
179 pp. Price \$2.50

Reviewed by Helen P. McDonald

How to Select and Direct the Office Staff is a book written for the business man or woman who is in charge of office personnel either in a large or a small business concern—it is a book that could readily serve as an "office bible" to the individual responsible for the organization of a new company or department. It includes information about the initial selection, organization, and classification of duties of a personnel, as well as the techniques necessary for the smooth running and general esprit de corps of this group.

In this period of national emergency, which is causing increased labor difficulties and turnover, it is extremely important to have basic and current information in relation to proper and adequate employee selection (through interviewing and testing,) analyses of duties involved in various positions within the company, organization of work and physical equipment for highest quality and quantity of work, and workable personnel policies in regard to promotions, discharging, payment plans, pensions, vacations, etc. Mr. Richards and Mr. Rubin have handled the various phases of these problems in a remarkably understandable and usable manner. They have cited many examples that can readily prevent an employer costly experimentation.

These authors have the ability to present information in a manner that gives a clear understanding of the responsibility of both the employer and the employee. In fact, it is my personal belief that this is a book which an employer can turn over to a new member of the firm, indicating quite frankly to the employee on what basis he was selected and what will be expected of him in order to maintain "smooth running" of the company which will effect mutual benefit to both the employer and the employee.

How to Select and Direct the Office Staff may ably serve as a working tool to every employer and manager of an office force.

VOCATIONAL GUIDANCE FOR BOYS

By Robert C. Cole. New York: Harper & Brothers, 1941. 252 pp. \$2.50

Reviewed by Willard Huston

Guidance in its simplest form is probably best presented in this book by a man who lives his subject—a veteran in boys work.

In formal guidance procedure we think of elaborate educational devices for testing and counseling youth. We frequently think of the field as an avocation for teachers and occasionally we are surprised by a progressive educational system with a full-time staff of counselors and guidance specialists. This book, however, strikes a new chord; it fills an urgent need in a comparatively new field. In contrast with the more formal, professional guidance, I should like to call it lay-guidance. Here a prominent boys club executive describes a complete program for schools and social agencies, and believes the latter, particularly, is in a strong position to render this service.

The author shows why guidance is not a one-man job: it must permeate the entire program whether it be in school or social service agency. Among the best chapters are those on starting a guidance program, forms for organization, group guidance and individual counseling, psychological and aptitude testing, placement, and guidance out-of-school. The selected bibliography of 163 suggestions for supplementary reading is one of the best lists of source material I have seen.

The book is worthy of a better title. The work is more than a treatise on guidance for boys—its principles may easily be applied to similar problems for girls. In fact all persons in guidance and counseling work will find this book rich with case studies of young people, and it is especially recommended to those in social service agencies who desire to organize, and maintain a guidance and counseling program worthy of the name.

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"Labor is Securing Increased Representation in the Government's Planning and Administrative Councils. Similar Representation on the Industrial Level Can Have Even More Far-reaching Effects in Ensuring the Success of the Nation's Efforts."

Unions Fight— *for* What?

BY CHARLES S. SLOCOMBE

Personnel Research Federation
New York, N. Y.

SOME few days before the evacuation of the British army at Dunkirk, fishermen in a small village on the east coast of England were asked to get all available boats ready to put out to sea for some unknown destination, at a moment's notice.

They set to work preparing their boats. One was stuck high and dry on the beach, left by the falling tide. So they sweated and fussed all afternoon digging a trough in back of it, so they could pull it down into the water. Finally they got the fire department to come down and wash away the sand and gravel behind it, and got it out.

A Crack at Hitler

THE whole village was roused to a tempest of activity. Wives baked huge stacks of pies and cakes for their menfolk to take with them. Weapons, sticks, pitchforks, gaffs and harpoons of the most ancient and rudimentary sort were collected.

Bearded old sailors of eighty and ninety, and hairless urchins of eight and nine all got excited and joined in the preparations, because they thought that at last they were going to have a chance of taking a crack at Hitler. They were sure they could beat him, no matter how many tanks, cannon, bombers and fortifications he might have.

They waited and waited for orders to sail, for what purpose or where they did not know or care, so long as it gave them a chance at Hitler.

But through some slip up in the Admiralty, they were forgotten, never notified to sail, and the evacuation of Dunkirk accomplished without them.

The most tragic aspect of this little incident is not that they were finally forgotten, but that it typifies a condition that is all too prevalent, in which there are many loyal, well meaning, but incredibly ignorant people wanting to do something about this war, and not being allowed to.

Troubles with Defense Jobs

THERE are unconfirmed stories by reliable people in this country of similar seemingly unavoidable wastes of energy in defense industries.

In one case a young man came back for a job to a non-defense company, which he had left to go into a defense industry. His reason was that he could not stand the amount of loafing he had to do. In another case a youth complained to the local public library because they would not let him take out more than two books a day. He took these to work, but finished reading them by the middle of the afternoon, and wanted a third to finish out the shift.

In another case a youth wanted to quit his job after four days. During this time he had drilled only four holes, and put in four bolts—he was required to stay and work overtime. That was all he could find to do, and he was sick of it. In another case a university graduate got a job as an inspector of incoming raw materials at \$180 a month. After a week he wanted to quit because work took only one half hour a day, when shipments came in, and he couldn't stand loafing around the rest of the day.

We are not interested in any criticism of the British Admiralty, that did not use the fisherman, nor the managements of the American defense industries where these boys cannot find enough to do.

The Dunkirk evacuation was a rapidly improvised move, in which there was likely to be quite a few oversights. And the rapid expansion of some of our defense industries has not given organization a chance to catch up with problems of production planning, supply of materials, and work assignments.

The Union Urge to Help

THE same sort of problem does however arise in larger areas, where it is vastly more important, and serious. With the growth of large unions in this country, as in England, the problem arises as to what is to be done with their strong urge to use the organized loyalty and ability of their members and officers in the national interest.

Even before the war, we had the Steel Workers' Union working out plans for labor-management cooperation for increased efficiency. They are still at it. The Auto Workers have also put forth plans for speeding up defense production. So have unions in the dress and clothing industries, and the textile workers, in regard to the conversion of silk mills.

On the Pacific waterfront, where over the course of years, the amount of cargo

loaded and unloaded has continued to decrease, the unions now say they want to reverse this policy, and join with management in increasing their work. But so far there has not been found a way of developing the necessary union-management cooperative machinery.

Perhaps some of these changes of heart on the part of unions have come about since the entry of Russia into the war. But many of the union proposals for cooperation came before then. The timing is relatively unimportant. The important point is, "What can be done about it, by management?" "Or by Government?" "Or by Unions?"

What shall be the function and place of these unions in the industrial picture, now during the war, and after. They, or many of them, have gone beyond the stage where they are occupied with getting new members, and keeping them, battling for higher wages and better working conditions, and fighting for recognition.

What Unions Can Do

TO LIMIT their work to these functions seems absolutely impossible. Even if it were possible, it would mean continual restlessness and conflict. By the very necessity of evolution they must take on other functions.

The possible extensions of their activities that are seen at present are:

Taking care of the social needs of their members, who through limited income are not able to afford proper recreation, vacation and health services. The International Ladies Garment Workers' Union has pioneered in this type of union development. It seems definitely a proper function of a union.

Union-Management Cooperation

ENTERING more and more into the administrative and managerial problems of business and industry. This is what some of the unions, such as steel, motors, clothing and textiles have seemed to want to do.

Their efforts in this direction have not, in general, been encouraged by the larger companies. There are many reasons for this—and perhaps, without being unjust to unions—we may think that a distrust of their competence is the main one.

While they are more intelligent than the English fisherfolk who wanted to fight Hitler with billyhooks, there are still many things they do not know about business management.

So far then their efforts have been limited to helping the smaller, perhaps less efficient marginal units in some industries. Perhaps it is to this limited field that they should confine their efforts, while they are serving an apprenticeship in business management.

The third possible extension of their efforts might be in the direction of organized political activity. While this has taken place to a certain extent, it has not yet progressed far, in this country.

This may take either of two forms; the setting up of a definite labor party, financially backed by trade unions, as has existed in England for many years, or the unions here entering into, and influencing regular machine politics, as has been the pattern so far developed.

Union Representation on Governing Boards

IN ENGLAND, since the Churchill government came in, there has been a new interesting development of union activity; that is the representation of unions on almost all boards and governing committees, either in an administrative or consultative capacity. They deal with such matters as labor supply, munitions production, food regulation, etc.

In America we have a much more limited application of this principle, on wage boards, mediation boards, etc. The AFL-CIO split is undoubtedly responsible for our more limited application.

However that may be, and however it may be resolved, it may be taken as certain that this country cannot avoid a continuance of labor strife, and internal dissensions regarding price and wage policies, nor come to a truly all-out defense effort, without some more extensive representation of labor in the direction of our national affairs.

That, at least, is the lesson that may be learned from English experience in the present war. England's national solidarity today, as contrasted with the internal dissensions and strife and production inefficiencies, of the last war point this up very clearly.

Present Arrangement not Representative

SIDNEY HILLMAN, with his corps of assistants, largely \$1 a year men on the payroll of industrial corporations, with a salting of liberal minded economist professors, of course, does not represent American labor unions.

It rather represents a continuing insult to them—for they have union men in their employ who are as capable as any the industrial corporations have been willing to release, and who would really represent labor's point of view. So long as this set up lasts, it only serves to intensify the unions' disgust with present affairs, and their refusal to cooperate with and aid in continuing the blunders at present being made in the defense production situation.

Before the war is over, of course, this situation will be changed.

The possible manner and means of bringing about a change may perhaps be better understood by the reading of a book recently published in New York, by two English Unionists, called curiously "Trade Unions Fight—For What?". It portrays the dual problem that has faced English unions for the past seven years. By analogy, it pictures two of the many problems with which American union leaders are faced today, and which industrial relations men should be working on.

Union Attitude towards War

THE English unions, through their central body, the Trades Union Congress had apparently been urging the government ever since 1934 to prepare for the Hitler menace. They had little success in this.

When the war finally broke out they passed a resolution favoring England's entry into the war. They refused however to help the Chamberlain government in the early stages. Not until Churchill came in did they agree to cooperate, and have their representatives in the government.

The unions favored the war, but were very conscious of the fact, derived from their experience with the Chamberlain government, that the war might be lost because the government might not prosecute it with sufficient energy and intelligence. Labor therefore wanted to be in the government, and on the various boards to energize them.

Troubles with Government Departments

THIS they did not find easy with the various departments, who under the traditional English civil servants, wanted to proceed in their usual leisurely way. When the unions finally got in to find out what was happening, they found that, for instance, to speed up munitions production the country had been split up into thirteen districts, each under the direction of a retired rear admiral, who knew nothing of modern production problems.

In the matter of labor supply, they found this being handled by the Labor Department with 5000 people in London, and only 100 out in the country trying to get things done.

So instead of fighting employers, unions joined with employers in fighting the lassitude of the government departments.

Another reason for the insistence of labor representation on government boards was the knowledge which union leaders had of the psychology of their own members. They knew that workers would have to submit to a "reduction of labor standards"; to controlled wages; to food rationing; being frozen to their jobs in many cases; in others ordered to take jobs, instead of freely selecting them; etc.

Independence of Union Members

THE union leaders knew that their members were so independent that they would not be ordered about by industrialists, or by a government largely influenced by industrialists, and their \$1 a year representatives. The leaders knew that, even in the face of the nation's danger, there would be a constant internal squabble, if the age old fight between management and workers was not bypassed for the emergency.

So by assuming the responsibility of representation in the government, they became in a position to persuade their members to agree to the hardships necessary in the prosecution of the war. When they undertook this responsibility, they knew

it was not a light one, for English unionists do not always follow their leaders, any more than they do in America.

If a leader gets too far away from the ideas of his people they often refuse to follow him. The English union leaders have had to move their people along pretty fast in the last two years, and have not had an easy time doing so.

English union leaders, big and small, are now having their first real taste of participation with industrialists and government officials in the administration of local, district and national affairs. And they are learning that the problems are entirely different from fighting about wages, hours and working conditions, or drawing up theoretical plans as to how industry or the country should be run.

Future of Unionism

THIS is causing many of them to wonder about the future of unionism, and the constructive part it can play in the development of a nation. So comes the question "Trade Unions Fight (Hitler)—For What?"

English unions, though they have never directly admitted it, have always been strongly influenced by Fabian philosophy, looking toward an eventual and seemingly inevitable socialization of industry by some means or other. The influence of the writings of Shaw, Bertrand Russell, Bennett, Wells, Tawney and Laski has been very strong. (The Wisconsin LaFollettes are the main representatives of this school of thought in this country.)

But while perhaps some of them have thought a lot about this, little direct action has resulted; partly because they have not been able to figure out a way of bringing it about; partly because they could not afford to get too far ahead of their members, who are mainly ignorant of these matters, and partly because they have seen the disappointing results of socializing efforts in other countries, and are aware of the extreme dangers involved in the process.

The net results of their efforts have been the financial backing of and electioneering help to a political labor party. This party has aided in the passage of social security and health legislation, and the adoption of the Fabian principle (now almost worldwide) of redistribution of wealth through taxation.

What to Do about Socialization

THEY have deplored the setting up by "Socialist Ministers" of bureaucratic government controlled public utility corporations such as the London Passenger Transport Board and the Central Electricity Board, as a form of socialization which they do not like, particularly when there is no provision for labor representation.

But the problem of what to do about socialization has so far stayed with them. It may be that their current experiences in participating in the active details of administration, with others, will cause them to revise their views on this subject, its desirability as an ultimate outcome, and ways and means of bringing about some substitute for it.

Foreign Failures

IN THEIR analysis of the Russian situation they see how, while the initial objective was to place the control of production in the hands of workers, the final result has been to give them less say in directing production and influencing wages and working conditions than they had under the Czars. This is primarily because Russian workers know so little of the problems of organization involved in production. They are too much like the English fisherfolk.

Then they look at the attempts to set up collective economies in Republican Spain and Catalonia, before the Franco revolution, and the developments of union control of railroads and oil in Mexico. They do not like the results at all.

They are also unimpressed by the labor banking movement that Sidney Hillman tried once, and by the "Plumb Plan" once accepted by American Railroad Brotherhoods and the AFL as a solution of our railroad problem. They are equally unimpressed by the way in which the cooperative movement has developed in England and elsewhere.

So the Chairman of the English Trade Union Congress appears to feel that though the present program of their unions, of cooperation with industry and government with a reasonable amount of representation, is called a "timid and tentative exercise of union authority" they had best let it go along that way till they know how to progress to another stage.

Reorganization of Union Movement

HE SAYS that there must be a considerable reorganization of the English trade union movement; with some resolution of the craft versus industrial unionism situation; an education of their members so that they understand national and industrial problems better; an education of them so that they are not constantly urging their leaders to get improved conditions, at the expense of the public and their fellow workers. He regards as having a beneficial influence, the affiliation with the Trades Union Congress in recent years, of the Bank Officers' Guild, the Medical Practitioners, the Guild of Insurance Officials, the National Union of Journalists and the Union of Navigators and Engineering Officers.

If the authors of this book in any way represent the views of union leaders in England, we may not expect to see any tendency towards socialization in England after the war. Nor may we expect to see any increase in bureaucratic new deal centralization of authority, such as has been taking place in this country, and an increase of which is feared.

Basic Problems of Unions and Employers

THERE will probably be an increase in central and local joint efforts at cooperation between employers and unions, possibly having as one of its objects, resisting encroachment by the government.

UNIONS FIGHT—FOR WHAT?

But basically, the problem of the union leaders is one of educating their members. For the applecart will be upset if there are left wandering about, as there are now in the CIO unions of this country, any substantial number of workers with a psychology similar to that of the fisherfolk, well-meaning, energetic, ambitious, ignorant, but easily capable of developing a pathological slant through continued frustration.

Basically the problem of employers is to enter into cooperative relationships with unions as rapidly as union leaders show, by their democratic management of their unions, and their intelligent understanding of industry and production problems that they can help rather than hinder. In this respect, it should be remembered that unions, like children, learn by doing—a statement made with due apologies to unions for the comparison.

A commentary and review of the book "Trade Unions Fight—For What?" by Herbert Tracey. 1941. Chemical Publishing Company, Brooklyn, N. Y., pp. 222. Price \$2.00.

Often the Only Time the Personnel Department Sees an Employee is When He is Hired. The Department's Knowledge of Him for the Next Forty Years of His Working Life with the Company is Often Derived Solely from Paper Slips Showing Ratings, Promotions, Etc.

Selecting Employees *for* Advancement

BY LYNN B. DRURY

C and H Sugar Refining Corporation
Crockett, Cal.

THE selection of the best qualified man for the job and a chance at a desired job for every employee is a major personnel problem, the solution of which exerts tremendous influence on operating efficiency and personnel morale.

As a background to outlining our solution, we employ approximately 1,700 workers in five major departments with an annual labor turnover of from six to eight per cent for the past ten years, practically all in the lower wage brackets. We operate on three shifts which are rotated every two weeks with seventy per cent of our employees so employed. In addition, our apprentices in ten crafts are selected from our operating employees.

New Agreement Covering Promotions

THE low rate of turn over means that many potentially capable men are more or less frozen into routine jobs.

In common with the average concern, the "mental file" system of selecting employees for advancement or transfer to other departments was formerly used, with the average percentages of success and failure and the usual grapevine rumors of favoritism, etc.

The shortcomings of this system were recognized by both management and labor, culminating in the inclusion of the following clause in our 1938 contract with the union.

"... The Employer, when promoting employees shall give due consideration to (1) individual merit, (2) physical, moral and mental capacity and general fitness, (3) length of service with the Employer and (4) American

citizenship. Whenever employees have equal qualifications for promotion, the employee having seniority shall have preference.

When vacancies occur in occupations paying — or over for men, or — or over per day for women, the Employer agrees to post notice thereof on the bulletin board, except on jobs where regular relief operators are in existence. In these cases, the regular relief operator will be advanced to the vacancy, and notice posted for the position of relief operator whenever, in the opinion of the Management, such relief is needed. Where there is more than one relief operator on each shift, the relief operators shall be advanced in the order of their selection. Written applications may be made to the Personnel Department by employees seeking transfer or promotion to such vacancies and due consideration will be given to such applications."

Through a period of refinements a standard form of job posting has been adopted, and application blanks are supplied to applicants by the personnel office.

Name and work number of each applicant are recorded at the time the blank is requested, and when the application is turned in a receipt at the bottom of the form is detached, signed and given to the employee. These precautions are taken to avoid any controversy over lost applications or other irregularities.

Seniority Age and Rating

AFTER the expiration date for filing, which normally allows five working days from time of posting, the applicants are listed in order of seniority, noting hired dates, ages and ratings.

This latter is the rating given each worker by his foremen on 11 to 15 attributes covering his work and personal qualifications. Our station foremen are reverse rotated on shift every six weeks, so that the majority of our employees are rated by three foremen, never less than two, and the results averaged to obtain an impartial figure. The separate ratings are reviewed and commented on by the department head involved, before going to the personnel office and becoming a part of the employees permanent record. The results of each bi-yearly rating are entered on a master sheet for comparison.

Incidentally, every employee has the privilege of seeing his averaged rating, and talking it over with his supervisor. An important product of this system has been a marked increase in job efficiency on the part of many.

In the lower bracket jobs advancement is made on the basis of seniority and job performance as shown by the rating of the individual. A poor rating is considered as sufficient cause for rejecting applicants for promotion.

Tests for Higher Brackets

IN THE higher brackets and for transfer to other departments, intelligence and aptitude tests have been employed since May of 1940 with extremely gratifying results.

The first use of such tests was in selecting clerical workers by means of various Otis, Thurstone and Terman forms, but in March of this year we were confronted

with 15 applicants for 5 mechanical apprentice jobs, and the need for a systematized method of picking such trainees was realized. This was emphasized by the realization that under present economic conditions we should pick men with the highest possible capacity to make rapid advancement, due to the possibility of losing some of our trained mechanics to defense industries.

Engineering Department Tests

OUR Engineering Department devised a series of weeding out tests, and a second all day test for their final selection. At the same time the Personnel Department made a survey of mechanical aptitude tests, finding the Minnesota forms apparently the best adapted to the task at hand.

Using the Otis Test of Mental Ability and Minnesota Paper Form Board we conducted a 40 minute test of the 18 applicants that had survived the preliminary test, and when results were tabulated the numbers one, two and three men were the same in our tests and in the Engineers all day examination. Further, the first eight were the same with some difference in ranking below the first three.

On the basis of these results the Engineering Division withdrew from future testing in favor of the Personnel Department.

Later, several of the applicants rejected by the first mechanical test were given the paper tests as they made application on new job postings, made acceptable grades and after transfer to a craft have proven considerably above the average.

The explanation appears to be that the tests devised by the Engineering Department, in common with several other tests in general use, measured whatever training the applicant had had, instead of the natural mechanical ability gauged by the Minnesota Form Board.

Selections by Personnel Department

SELECTION of applicants is made by the Personnel Manager and department head involved based on acceptable ratings in the tests used, past job performance (as demonstrated by the rating) and seniority. In the case of transfers to the various crafts the foreman is given the opportunity to interview several acceptable applicants, with the understanding that the Personnel Department's number one selection is to be accepted, unless there is a valid reason for his rejection.

While we do not have sufficient data to validate our findings, all indications are that the system is highly successful as regards selectees and our foremen and various department heads have become sold on the procedure, even to the point where protest has been made when tests were not employed for a very temporary job.

From the standpoint of the employee there is no system that will make an unsuccessful applicant happy but he does have, under our plan, the knowledge that his application had full attention and he can be shown, on paper, why he was not selected.

At the start of the testing program considerable suspicion was encountered. The greater part of this has disappeared and we now have employees, including foremen themselves, requesting opportunities to be tested, although there is a minority group still opposed to the procedure.

From the standpoint of the personnel office the benefits are several, one of the most important being the uncovering of unknown aptitudes, and placing of men where they are likely to be of most value to the company, and attain the highest degree of personal success.

Improved Job Placement

SEVERAL employees with service in our operating department ranging up to 12 years, and dissatisfied with their progress have shown through the medium of tests a high degree of natural mechanical ability, coupled with the requisite intelligence level, have been transferred to a mechanical craft, and are now satisfied workmen doing good work of a type to which they are adapted.

In one case a man with 12 year's service, during which period he was tried on various jobs in three non-mechanical departments, and who was slipping to a low level through his inability to get anywhere, was transferred to the carpenters, where he is outstanding as an apprentice and has expressed himself as being really satisfied for the first time since entering our employ.

Another employee, 43 years old with five years varied experience in our Operating Department, had made several requests for a transfer to the sheet metal craft with no success. His ratings in the tests won him the transfer, and at the present time he is establishing an enviable record.

Remedial Study of Case

IN A case where there was a suspicion of a man not having shown to best advantage at a previous trial in our machine shop an exhaustive study was made, showing that he had considerably above the average natural ability but that at the time of the trial certain outside factors worked against his success.

His foreman had reported a decided lack of initiative and ability to keep his mind on the job, together with interference by his father who is an outstanding specialty mechanic. Investigation brought out that at the time the young man was engaged to be married, and in the throes of an emotional disturbance, in addition the strong Vocational Interest Chart gave the information that his level of occupational aspiration was low.

On the strength of his ratings in the aptitude tests the mechanical department agreed to another trial; the complete picture was given to the employee and the father advised not to "mother" the boy, in the plant at least. The case has worked out satisfactorily up to the present time, and the young man appears well on the way to becoming a skillful machinist.

Retest Results

THROUGH the medium of retests efforts at self improvement along some lines can be gauged, mainly in the study of mathematics which appears to have a certain accelerating action on the general thinking process of individuals engaged for comparatively long periods in purely routine and in repetitive work.

The tester is enabled to feel certain trends of thought among the employees, and to promote a better feeling towards management through the medium of informal talks to small groups of testees. Such talks, preliminary to administering the tests, originally designed to put the applicants at ease, have developed into question and answer sessions of extreme value. In a sense they are a type of post-hiring interview giving an opportunity of studying personnel in an entirely new light.

Eventually the procedure will yield valid data on relationships between intelligence and aptitude levels, and training costs and efficiency, which in itself will justify the time and expense of conducting the tests.

At the start tests were administered in what appears to be the orthodox method, i.e., the intelligence test first with the others following.

Necessity for Retests

AS WE went deeper into the subject, retests were made on a number of employees, resulting in about 30% making better intelligence ratings on the second test, contrary to the belief of psychologists that the individual intelligence levels remains the same.

So experimentation and a study of the results were made, which convinced us that when the testee is recently out of school, where he has been used to examinations and paper work, the results of mental ability tests normally remain at the same level.

But in the case of a person who has been employed for some time on a routine factory job, an allowance must be made for the lack of recent familiarity with tests and paper work, and a general retest administered, which will give a more accurate picture of the abilities of the employee.

Buffer Tests

WE now use a 30 minute arithmetic examination as a "buffer" test or nerve settler and brain "warmer upper," followed by the aptitude tests and concluding the session with the intelligence form. This method appears to set the applicants at ease, and put their minds in gear with closer correlation between the first and subsequent tests.

In administering the subsequent examinations we endeavor to use alternate forms comparable in scoring.

SELECTING EMPLOYEES FOR ADVANCEMENT

Repeating what we have previously stated, these "findings" are as yet unvalidated, and perhaps should be labeled our impressions, but the fact remains that we have so far selected clerical and stenographic employees, transferred men to various mechanical crafts and to our Technical Department, as well as selecting foremen for various important stations with a reasonable record of success.

American Labor Can be Rallied to the Cause of the Nations Fighting Hitler by Full Recognition of Its Economic Rights and by Utilization of its Creative Contributions to Our National Defense Program.

Trouble *in* The Mines

By ELMER ROWE

Butte, Montana

WHAT is wrong with management in the mining industry? Why is there so much unrest and dissatisfaction in the ranks of the employees in the mines? Why cannot the employers and employees effect a more perfect consonance when the world situation almost demands a unanimity of purpose which has never been approached previously?

Executive Ability in Mine Management

THERE are a number of reasons why these questions have not been disposed of permanently. Labor has its full quota of faults. State and national legislatures seem to be determined to enact more pro-labor legislation than industry as a whole, and particularly mine management, can keep up with. However, in the interest of brevity, these matters will not be discussed here, except to admit that they do exist, and that they should be corrected as quickly as possible.

If it could be proven that management of the mining industry lacks executive ability there would be nothing more to be said on the subject. But management does possess this ability. Some of the best brains in this country are directly connected with the industry. That is the cause of the paradoxical situation that exists in the mining industry. Granting that mine management is capable of better things, why are employer-employee relations so generally unsatisfactory? Why has not management pointed the way to mutual understanding and cooperation between itself and the miners?

Frankly, the writer is unable to understand why the situation exists. Many of the causes of faulty labor relations are readily apparent, but why they have been

permitted to retard the healthy growth of the industry is a question which, in many instances, management alone can answer. All the writer can do is to enumerate a few of the causes, and then put the matter squarely up to management to accept, and do something about it, or to reject and let nature take its course.

Complete About Face

ONE of the most prolific causes of employee dissatisfaction and resentment lies in the treatment accorded the men by their immediate supervisors, the shift bosses. The great majority of these bosses were promoted from the ranks of the miners. Most of them are entirely familiar with the problems and vicissitudes with which the miners must contend. The bosses themselves once had to face the same conditions. But it is a constant source of surprise to note the dexterity with which these men can do an almost complete about-face and do the self same things they so very recently had complained about in the supervisors who had been over them.

One encounters a great many different types of bosses in the mines. There is the hard boiled "rawhide" type; the glum sullen type; and the cantankerous type. Others are fretful and plaintive. Some are perpetually worried or eternally dissatisfied. Many are chronic "buck passers," and quite a few are accomplished "yes men." In short, every one of the diverse types of human personality are represented in the supervisory staff of the average mining company.

The Hard Boiled Boss

UNDER a "hit or miss" system of mine management this condition is inevitable. But if top management must possess an unusual quality of leadership, so also should the supervisory staff possess the same grade of leadership, except that it need not be of the same high standard. And frankly, there is only one type of person who can attain any marked success in any supervisory position, and that is the executive type. All of the various types mentioned in the last paragraph are entirely unsuited to handle men with a minimum of friction.

By the executive type it is meant the man who can be impartial without being coldly impersonal. The man who can be square with everyone. The man who realizes that while some of his men have to be pushed, so to speak, in order to get their work done, the majority readily respond to courteous treatment and human consideration. A hard boiled boss may be able to "ride" a certain percentage of the men, but the kind of miners the mining industry needs the most is the kind who have sufficient self respect and self reliance to resent this sort of treatment. Such men refuse to tolerate this type of boss, and generally keep moving until they find a boss who will accord them the consideration they rightfully demand.

Some mining companies use the trial and error method of selecting shift bosses. A miner is promoted to a supervisory position and if he does not make good within a short time he is either demoted or fired outright. It is the writer's contention, however, that whenever this happens the management is guilty of one of two pos-

sible mistakes. Either it has failed to pick the right man, or a potential leader has been selected, but has received neither proper nor adequate training to fit him for the position. In either case a definite monetary loss has been sustained by the firm, and management has to chalk up another error.

Bad Bosses Drive Out Good Men

THERE is an axiom in financial circles to the effect that, as Gresham puts it, "Bad money drives out good money." This principle applies also to supervisors. Low grade bosses drive out high grade men who may be potential high grade bosses. To put the idea in another form, "like attracts like," and the mine which has the right type of men acting as bosses can generally always depend upon an adequate supply of good supervisory material to fill future requirements. In short, good management and good shift bosses attract good miners, and good miners, plus adequate training ordinarily make good bosses. This is not an infallible rule, but a certain amount of discrimination can make it reasonably reliable.

Quite often it seems apparent that management is too much inclined to treat the employees collectively instead of individually. Individual differences in ability and dependability, and all the other numerous human qualities and faults are apt to be overlooked. All men are not equally capable, nor are they of equal intelligence. When this truism is ignored it works to the disadvantage of both employer and employee. To disregard the individual differences in the employees and to treat them as a group is not only unwise, but is unscientific, and its faults outweigh its virtues so overwhelmingly that little can be said in favor of such a policy, except that, in a short-sighted sense, it is the easiest way to handle the situation.

Labor and Management Loyalty Both Possible

SOMETIMES a man's affiliation with, and loyalty to a labor organization is permitted to becloud the management's judgement of him as a worth-while employee and as potential supervisory material. Men can be loyal to a labor organization and loyal to their employers at the same time. Management should go out of its way, if necessary, to cultivate employee loyalty, if for no other reason than that it pays dividends. A great many mine owners and managers seem to be unaware of the fact that the more loyalty the management is qualified to receive from the employees, the less need there is for militant labor unions.

Management often prides itself on its "open door" policy in regards to employee grievances and criticisms. Many executives boast that the door to their office is always open to the men, however humble their position may be. It is easy to make such a statement, or to have it put up on the bulletin board, but the employees seldom invade the sanctum sanctorum of the "chief" unless they have been repeatedly urged to do so, and unless they feel sure that they are really welcome. If such a policy is not the genuine article it is analogous to an empty sample table in a business establishment bearing the sign "Free. Take One."

Help in Developing New Ideals

THE management of the mines should give serious consideration to the proven fact that the average employee will cooperate willingly, and as efficiently as possible, in putting over an idea or a program which he has either conceived or helped to formulate. When a new idea is "sprung" on the employees out of a clear sky, the natural reaction is often indifference, if not actual resentment. Because of this reaction, the idea must overcome a tremendous handicap if it is to succeed. If the same idea had originated within the ranks of the employees and/or they had helped to develop it, it would have a far better than average chance of succeeding.

The investors should be assured of a reasonable return on their investment, if humanly possible. The management should receive adequate remuneration. The customers should receive a satisfactory product at a fair price. The general public should feel that the industry, or the individual firm, is contributing its just share to the advancement of American civilization. And the employees should be assured of an opportunity to work and earn a decent living under conditions which are as favorable as possible. To this end, the workers should have a voice in all matters pertaining to employer-employee relations. They should have an opportunity to either accept or reject any proposed program which will affect them in any way. The opportunity should come while the idea is in the embryonic stage, instead of after it has been officially adopted by the management. Otherwise it comes mighty close to being paternalism or more or less benevolent dictatorship, depending upon the basic labor policy of the individual firm.

Criticism Should Be Free

EMPLOYEES should be as free to criticize management's actions as they are to criticize the actions of our government officials. Every citizen has the inherent right to criticize any public official from the coroner to the president without forfeiting his citizenship and being branded as a traitor. But how many employees can openly criticize the management without being classed as radicals and trouble-makers, or without being summarily discharged?

Perhaps the belief that the King can do no wrong may work out under absolute despotism, but in a free civilization there are no autocrats, and industrial executives not only can, but frequently do make mistakes. Working men who believe in the dignity of labor cannot long be satisfied with an existence in which they are free politically, and anything but free in an industrial sense. Our democratic ideals and practices should pervade all of our day to day activities. Labor should be able to criticize management without fear of industrial disfranchisement.

It must be added, by way of encouragement, that the very firms which try to apply democratic principles in their labor relations are the very firms whose employees have the least occasion for criticism. In such cases the democratic ideals already existed in the minds of the management. It remained only to give them definite form and substance.

Discipline by Consent

IT is not the writer's contention that management should surrender its right to manage the business of the mines in the most efficient manner possible, and for the mutual benefit of all concerned. Every organization must have a head, or a governing body, and reasonable discipline must be maintained. But discipline is best secured through mutual consent, goodwill and cooperation. It must come from within. If any discipline on the part of the employees comes from an outside source it may actually indicate anything from indifference to actual timidity caused by unfair pressure from the supervisory staff.

Democracy in industry as a whole, and in the mining industry in particular, is not an impossible ideal. It can be applied to the mining industry, and when it is applied it will bring about a new concept of the dignity of labor as it is applied to the "mucker" and the miner. When all of our democratic ideals are given application in the mines the miner can at long last affirm that this is truly the "land of the free" and point to his workaday life as another proof of the verity of the affirmation.

If You Have an Employment Testing Program,
or Think of Putting One in Do Not let it Become
Static. Jobs in the Plant Change, the Educa-
tional Background of Applicants Changes, and
New and Improved Tests are Constantly Being
Developed.

Do Your Tests Pick Good Workers?

BY RICHARD S. SOLOMON

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THERE are a group of very important factors which are often neglected, but which, in our opinion, must be continually kept in mind if an aptitude testing program is to accomplish its purpose. These factors may be classified roughly as the basis or background of psychological testing.

We believe that they have been neglected because we have been too much concerned with technical details, percentile rankings, critical scores, item analyses, techniques for ratings and other necessary factors which, because of the frequency of their occurrence and their direct application, have almost taken the place of more fundamental considerations.

End Result Should Be Prediction

THE end result of an aptitude testing program, should not be the development of the test itself or a percentile ranking, or a critical score, or a rating. These factors are only tools or techniques. The only justification for their use, we believe, lies in the assistance they give us for *prediction*. *It is the ability to predict that is common to all types of scientific work.* If we are able to predict success or failure which any given individual is likely to attain in a specific position through aptitude testing, then aptitude testing is justified.

Likewise, if we are able to predict by any other method, whether it be in the realm of pseudo-science such as graphology, palmistry, phrenology, astrology or through sheer guess work, faith in human nature or intuition, these methods are justified to the extent that our prediction work out in actual experience. As far

as we know, however, these so-called pseudo-scientific methods do not give us a valid basis for prediction above chance.

In an attempt to explain the value of aptitude testing or prediction to a friend of mine recently, I used a very simple analogy from everyday life. I asked him whether he would be willing to predict that if he threw out of the window a heavy paper weight, which was resting on my desk, it would fall to the ground. In answer to this question, he said that it did not apply at all to aptitude testing because in the case of the paper weight we were dealing with "the scientific law of gravity."

In an hour of discussion, I think I was successful in convincing him that prediction in the case of aptitude testing and prediction of the case of the falling paper weight were both examples of an identical process. The only difference between the two lies in the *certainty* with which we would be willing to predict in either case.

Steps to Achieve Better Results

IF THIS is true it implies that there is much that can be done in aptitude and psychological testing to increase the certainty of our predictions. One of the most important changes that can take place has to do with the use and interpretation of our present norms or standards. There is a need for constant revision and re-standardization.

Comparatively few users of psychological aptitude tests realize that the development of tests has come through the channels of formal education rather than through business. From the time of Binet, working in France at the turn of the century, to the present day, the vast majority of tests which are now in use were designed for educational purposes. The standards were, therefore, obtained on school children, this has been extended to include college students also, so that the college sophomore has served much more often as a guinea pig than the factory worker, clerk, salesman or executive. It is, therefore, no more than a point of logic that the predictive value of tests will be increased if they are restandardized for the particular situations in which they are to be used.

Battery of Tests Best

INCREASED predictability can also be attained if a testing program is built around a battery or series of tests instead of the use of one or two tests individually. There are at least two distinct reasons why the use of a complete battery of tests is desirable. In the first place, it is well known that by increasing the length of any test that is originally valid and reliable you almost automatically increase its predictive value. The same fact applies to a number of tests which are organized to comprise a specific battery.* Although there will be much over-lapping between the factors which are measured by each individual test, the use of a number of independent tests related to

the specific position under consideration will tremendously out-weigh the value of any single test when used alone.

More important, however, is the fact that if a battery of tests is used, a pattern of test scores may be developed which will give an overall picture of the characteristics and abilities required for success on a particular job. The development of patterns has numerous advantages over the use of single test scores. It is always a combination of characteristics and abilities which point to success or failure rather than any one factor.

As one factor changes in an individual's make-up, many other characteristics change along with it so that the pattern is a truer picture of the individual. In addition, a pattern of test scores will help localize the difficulties which a particular individual is having, even though all of his other abilities make him well qualified for his position. In this way, in any individual, weakness may be overcome and areas of strength may be capitalized upon.

The psychologist who is an expert in interpretation of an individual's overall pattern or profile of characteristics and abilities will analyze it much in the same way that a physician diagnoses a disease entity in a patient. Fever symptoms are common to hundreds of different types of diseases. Likewise, low mental ability is common to many different types of difficulties encountered on the job. A physician must correlate many different symptoms along with a fever to determine whether his patient is suffering from pneumonia or scarlet fever. The remedy or treatment in each case will differ according to the diagnosis.

The same process may be used in diagnosing maladjustment on the job. Such factors as mental development, personality characteristics, social intelligence, mechanical ability and proficiency in handling detailed work must be considered as a total configuration or pattern, each factor may thus be related to all others. Then the proper course of action can be taken.

Some Fallacies of Statistics

AFTER a series of tests has been developed and a pattern of test results has been obtained, it is the usual procedure to check upon the reliability and validity of these test findings. These procedures involve the knowledge and application of standard statistical methods. While a knowledge of statistics is almost indispensable when dealing with the development of a testing program and test results, very often much confusion, if not ignorance, is contained in statistical work. In this connection, it is advisable to point out that the use of statistics is merely a tool for prediction. Many errors have occurred through the wrong application of materials derived statistically. No matter what statistical procedures are used, whether they are the calculation of the average, a percentile ranking, an inter-quartile range, correlations or even regression equations, they must in turn be re-interpreted in terms of meaningful language in connection with the material which is being studied.

A simple illustration will serve to point out the danger of taking statistical data at face value. At one time the board of trustees of a large American medical school was considering the admission of women as students for the first time. There was a great controversy over this question, the board being equally divided pro and con so that final decision was delayed for at least a year. In the meantime, as an experiment, women were admitted as students for a trial period of one year. At the end of the year the subject arose once again for discussion.

Two for One

ONE member of the board had prepared some statistical evidence to show why it was not advisable to re-organize the medical school on a coeducational basis. In support of his contention he presented figures to show that during the one year trial period 50% of the women enrolled, married members of the faculty. He said that such a condition could not be tolerated as a permanent policy of the university. His colleagues on the board of trustees were inclined to agree with him, until one member asked how many women had been admitted to the medical school during the year.

It was revealed that only two women were enrolled in the school that year, and it was, therefore, not such an intolerable situation that one of them should have married a member of the faculty. The chances of this occurrence happening in future years was admittedly good; the chances of the proportion of 50% being maintained in future years were practically nil.

In general, for purposes of prediction it is advisable to use statistical procedures only when other methods will not give the desired results. In rechecking the validity and reliability of a psychological test in an aptitude testing program the results are more satisfactory if the test is checked against actual performance on the job rather than against other measures. For example, it has been a common practice to validate a new test against an older one. By validity, we usually mean that a test measures what it is supposed to measure. In other words, a test for clerical ability, if it is valid, measures a person's ability to do work of a clerical nature and no other type of activity such as mechanical, musical, artistic or literary.

Since many tests, especially the personality and temperament tests have not been validated except by use of other tests which are supposed to measure the same characteristic, any errors which occur in the first test are automatically perpetuated in the second one. If instead of this procedure the test is checked against actual behavior on the job, errors which are found to exist can be corrected. This procedure can apply to any field of activity and can also be used in connection with the establishment and re-checking of the reliability of the tests.

The Value of Negative Cases

BY RECHECKING the results of test predictions in this way, much more can be found out than through the use of statistics alone. One of the most valuable circumstances occurs when a negative case is found. A negative case is always a danger signal. It can be determined statistically that in 92 cases out of 100 a certain mechanical ability test will predict the likelihood of success of an individual for mechanical work. John Jones was tested and achieved a high ranking on the mechanical ability examination. Statistically there is no way of determining whether this one case, John Jones, comprised one of the 92 potentially successful cases or one of the eight potentially unsuccessful cases. The only way to determine this point is to check John Jones' performance on the job. He may be found to be one of the eight cases in 100 who is unsuccessful. If this is true, it is in many ways more valuable information than if Jones had been found to be successful. The reason is obvious. If enough of these negative cases are found, further study may be conducted in order to improve the test. The important point is that in aptitude testing negative results are some times just as important as positive results and should be recognized as such. The cases wherein aptitude testing has been found to fail, therefore, should not be used as a condemnation of testing, but rather as a point of departure for further constructive work.

The Value of Exceptional Cases

THERE is a tendency in most types of human activity to point out the exceptional case as a justification of either the use or disuse of aptitude testing as a permanent company policy. While extreme cases call attention to results obtained and are interesting examples, they neither prove or disprove anything. Whether an individual tested is an extreme case or not is purely a matter of chance.

The significance of extreme cases, however, lies in another fact. By an extreme case we mean one which deviates considerably above or below an average point or standard. In predicting the success or failure through aptitude testing of a worker on the job the well known concept of the normal probability curve is brought into play. Individuals who attain scores which lie at either extreme of this curve are those which deviate considerably from the average. The predictive value of a test result is directly connected with the degree to which one test score varies from the average. In other words, we can predict the success or failure of an extreme case with much more certainty than one that lies very close to the average.

There are many reasons for this, but the principle one lies in the fact that there are a lesser number of chance factors such as motivation, health, previous training and education, not measured by the tests which are likely to effect the individual, if he is an extreme case. Conversely if an individual attains only average scores on a battery of tests the likelihood that the test results are true measures of his character-

istics and abilities is very much reduced. It is, therefore, much easier to say with certainty that Mary Smith will do an excellent job as a private secretary on the basis of well above average test scores than it is to say that Jane Clark will do an average job in the same position on the basis of average test results.

Long Trend Upgrading Through Testing

THE advisability of making predictions from test results, however, on the basis of probability depends primarily upon the nature of the situation. If the situation demands the immediate hiring of 50, 100 or 500 men, let us say, machinist's apprentices, the chances may be 75 in 100 of securing well qualified apprentices. In other words, out of every 100 applicants tested who attain a score on a battery of psychological aptitude tests above the minimum critical standard, it can be predicted that 75 will respond to training, develop their basic skills, maintain a stable personality adjustment on the job, and eventually develop into expert machine operators. In such a case although there will be 25 other individuals who are hired and are found to be unsuccessful in their work, it can easily be demonstrated that this number of failures is far below those which would have occurred by use of other employment methods.

If over a long period of time, selection of new employees is based upon aptitude testing a gradual upgrading of the organization will occur. It may actually be a year or two before concrete evidence in the form of increased production, less turnover, more sales, and better individual relations are obtained. There even may be a conflict between this long term point of view and short term results. Business men, however, are fully aware that the prediction of a trend which will extend over a period of years is more reliable than the prediction of a single event which is likely to occur tomorrow or next week.

Nine Points on Testing

WE BELIEVE that the predictive value of aptitude testing in business can be increased if some of these methods are applied. As a summary of some of the methods suggested in the foregoing discussion, the following points may be included:

1. The ability to predict the success or failure underlies all work in the field of aptitude testing.
2. Tests should be restandardized for the particular situation in which they are to be used.
3. The predictive value of a battery of valid and reliable tests will outweigh the value of any single test when used alone.
4. A pattern of test scores is essential for increased predictability, and for taking the proper steps for individual control and self-improvement.

5. Statistical data obtained from test results must be re-interpreted in terms of meaningful language.

6. The validity and reliability of a scientific test should be established on the basis of actual performance on the job.

7. Negative or exceptional cases are of importance for learning more about the predictive value of test results.

8. Cases where extreme test results are obtained usually provide a more certain basis for prediction than cases based on average test results.

9. Predicting a trend over a long period of time is usually more successful than short term prediction. In this way, continual upgrading of personnel is possible.

If You Set a Time and Motion Study Man to Look at a Job being Done, and then to Set Up or Design Tests which Will Pick Good Employees for the Job, on the Principle that the Test Should be as Near Like the Job as Possible, What Luck Will You Have?

Job Tests

By Charles A. DRAKE

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IF SOME men can do an industrial job better and faster than others, it is now possible to provide tests that will select the men who can do the job best. This is a strong statement, but it is justified by the results that have been obtained during the past few years. These results have been secured by making a sharp break with traditional methods and by drawing upon time and motion study techniques to furnish the basic data for the new approach. The new testing techniques have been developed in two quite different industries, and are now being applied in a third as part of a comprehensive personnel program.

Present Methods Costly

MORE than five years ago we started our first program of this type for the Eagle Pencil Company. We began with the usual equipment of pencil-and-paper tests, and a few standardized performance tests that were then obtainable. We were limited by our equipment and by the techniques that were available in the area called "industrial aptitude testing." It soon became apparent to us that our procedures were time-consuming, costly, and wasteful, and they might also properly be viewed as somewhat impractical, if not as academic and unrealistic.

In searching for new and better techniques we constructed a few tests requiring in their performance motor movements that more or less closely paralleled the movements of the worker at his work, that is, in which the operation cycle on the test embodied most, or all of the elements of the operation cycle on the job. From careful analysis of the results of these tests when applied to experienced operators, and to

new applicants we derived certain tentative principles of test design. These principles were verified in later experimentation.

It was discovered that a test which was quite adequate to select operators for a job involving only disparate hand and finger movements was totally inadequate and misleading when we attempted to use it to select operators for a job involving dual hand movements or for a job requiring hand-and-foot coordination. Such a test was even less helpful in selection for a job calling for inspection ability.

Special Tests Developed

AS WE uncovered the needs for measures of specialized abilities we attempted to design tests to meet these requirements. The final result was a battery of such special tests, including three for dual operation, one for hand-and-foot coordination, one for motor rhythm, two performance tests for inspection and one pencil-and-paper inspection test. This last test was a forerunner of much important work in the development of tests of the visual perceptual abilities that underlie successful inspection of a product.

Crude as these early efforts were, and handicapped as we were by wrong concepts—a heritage from academic psychology—the results were important for later work. Analysis of the results lead to the hypothesis that there must be many other undiscovered human motor and perceptual abilities that are directly related to success on jobs. They lead to the conclusion that the attempt to discover a single dexterity, or to construct a single test, that would cover a multitude of jobs was bound to be futile.

Less obvious, but extremely important, was the chance discovery during the subsequent analysis of the tests results that the tests also uncovered an innate accident-proneness in the operators. It was observed that when the level of performance on the inspection or perception tests was higher than the level of performance on the motor tests the employees were relatively free from accidents. When this situation was reversed there was a record of more and more severe accidents.

Accident Proneness Disclosed

THIS last discovery probably discloses, from the nature of the physiological mechanisms involved, a general principle that is applicable to automobile drivers, to airplane pilots and to all others whose occupations call for visual or other sensory responses accompanied by manual or motor adjustments of action or inhibition. It should now be relatively easy to set up adequate testing procedures to eliminate, or at least to give added attention to, the pilot predisposed to crash because of some innate physiological mechanism. That such accident-proneness is a fact and that it is innate can hardly be further doubted in the light of the findings of the British in-

vestigators. Whether it can be wholly, or even partially, overcome by training is doubtful, but the subject demands much further investigation.

The test development work begun for Johnson and Johnson at their New Jersey factories in 1939 and carried on there and at their new Chicago plants in 1940 provided an excellent opportunity to try out the new techniques. The first project called for selection methods for inspector-packers who were paced by machine production. Two special tests were designed, one for two-hand coordination with intervening one-hand elements and another for inspection by combined visual, tactual, and kinesthetic perception. In addition a revised pencil-and-paper visual perception test and the conventional telebinocular test of visual acuity were applied.

Tests for Dual Operations

SUBSEQUENT projects resulted in the development of tests for jobs requiring dual hand coordination, dual hand plus foot coordination, and several for bilateral or disparate hand operations. In addition to these a test was designed for selecting power sewing machine operators, another for foot press operators, and a third—a motor-driven test—for selecting machine tenders.

The sewing-machine test was designed to select candidates for training on power machines handling heavy canvas and webbing materials, rather than for selecting experienced operators who would normally be given a practical test on the machine. The test was necessarily left-handed, since the conventional sewing machine on this work gives something like a 15 per cent advantage to a left-handed operator, and left-handed dexterity therefore required emphasis. Speed in moving the pattern through the test and errors or deviations from the pattern, announced by buzzer signal, constituted the scores. This test, alone, was not a complete test for the job.

Foot Press Test

THE foot-press test presented a very short operation cycle in hand-and-foot coordination. It is usually not desirable to set up such a cycle on a production press for test purposes, due to the hazard of injury to a person not on the payroll and to the disturbing and distracting effects of the surroundings. This test, in common with all other tests, was made as completely safe as it was possible to design it.

The motor-driven test for machine operators embodied the characteristics inferred from a study of machine tending on a certain group of specially designed production machines in one of the plants. Such operators were required to replace six different rolls of material as these became exhausted, to watch for and reduce jams in the machine, to anticipate such jams by inference from observed defects in the materials, and to start and stop the machine as necessary.

The test, some two by three feet in size, consisted of two flags moving at different speeds around the outer edge of this area. The RED flag overtook and passed the

JOB TESTS

WHITE flag in some eleven turns, or in a period just under three minutes. At six points around the course of the flags there were contact areas two inches in length indicated by white strips. A flag on one area while another was on some other area, or both flags on the same area at the same time, would cause a light to flash in the center of the board. The flashing of this light could be prevented by pulling one of six switches that corresponded to the position of the RED flag, since each switch was connected to one contact area. Pulling the switch for the WHITE flag, or pulling the switch too late, or failing to pull the switch would permit the light to flash and thus score an error.

On this test, if no switches were pulled, the light would flash nineteen times per cycle. Consequently nineteen correct pulls, with no light flashing, would constitute a perfect score. Excess pulls—pulls not required—would count as errors. In correct operation the testee anticipated where contacts would occur and pulled the appropriate switch in time to prevent the flashing of the light. After demonstration and explanation the testee was given one, and if necessary two, practice cycles. At first three record cycles were scored, but later only two were taken when it was found that this was adequate.

Tests for Inspectors

FROM the study of the test results and of the performances of the hundreds of inspectors and operators selected by the tests in this company, certain additional conclusions are possible. It is clearly shown that inspection is a highly specialized process and must be tested for separately. It is also evident that an applicant high on one special ability, such as hand-and-foot coordination, but low on others may reflect no credit on the testing procedure if he is arbitrarily shifted by management to some other job for which he lacks basic ability.

This latter consideration implies that we are on safer ground, with the present level of managerial and supervisory competence, if we select only operators who are high on ALL measured abilities. The practical limitation on this is that we may not have enough applicants to make such rigorous selection possible. Eventually all new employees will be restricted in assignment to jobs for which they have outstanding abilities and kept off the unsuitable jobs. This is a problem of supervisory control.

Intelligence Test Results

AT THE instance of the Johnson and Johnson management we applied intelligence tests to several hundred applicants and old operators. The results were what was expected—no relation with scores on the performance tests and little with the perception tests. Stupid applicants usually make unsatisfactory operators on the

jobs and too intelligent operators soon quit. This statement sums up our opinion of the usefulness of intelligence tests in factory employment.

Foremen's rankings, output figures, and efficiency ratings by time study techniques were found to be unreliable and lacking in validity as measures of operator ability on the job. We have therefore proposed that test results be used as the criterion against which to measure the success of management, particularly of supervision, in releasing these measured abilities in production. Our success in predicting eventual level of production under favorable conditions of supervision and incentives is most encouraging.

The original work in perception begun in the Eagle testing was carried further during our three-year period of experimentation in the Bureau of Instructional Research of West Virginia University. Basic research in visual, tactual, and kinesthetic perception, including visual perception under varying speeds of presentation of the stimuli, varying lighting conditions, and varying distractions was undertaken and partially completed in spite of severe financial handicaps. Much of this can now be embodied in tests for industrial selection, for safety testing, and for other personnel measurement purposes. It has been conclusively demonstrated that good vision is no guarantee of good perception and that certain visual defects are no handicap in some jobs calling for limited visual performance.

Tests in Textile Industry

IT MAY be well to summarize, at this point, how these developments bear upon the present extensive project in the textile industry. While it must be conceded that this industry does not offer as great an opportunity as do certain other industries for the full further development of industrial selection techniques, it has unique problems the solutions for which are urgently necessary.

The techniques are ready to hand for selecting those with the basic abilities required for weaving and for operating spinners, warpers, slashers, and other preparatory machinery. We can readily set up selection techniques for inspectors and other employees of the cloth room. We can proceed to design tests for loom fixers and for fixers on other textile machinery, with every assurance of success.

Our knowledge of perception makes it possible to set up tests for color vision, for color discrimination, and for color matching. The way is clear to develop objective measures for "hand," an area heretofore almost wholly subjective, although the design of suitable tests will require much further experimentation.

It is not intended to imply that we draw solely upon our own experimental results for guidance in this effort. Many other investigators have contributed much that is of value. Unfortunately, a large amount of such work has been performed only for research purposes and has limited application in the practical work of employee selection.

Industrial Engineers Used

AS A matter of policy, we have found it desirable to allocate the design, construction, and interpretation of performance tests as a function of industrial engineering rather than of psychology. This policy has been established on the basis of our experience that it is easier to train industrial engineers in the limited statistical techniques required than to find persons with extensive psychological training who also have adequate knowledge of time study techniques and machine design. Conventional developments and applications of pencil-and-paper testing techniques will continue to be carried on under the psychological and personnel functions.

Just why Federal government agencies, particularly the Army and Navy, have not undertaken energetically the development of this line of testing is not wholly clear. Certainly the selection of the best and most easily trained personnel to operate rangefinders and guns and the dozens of other pieces of specialized optical and mechanical equipment is most important in a time of national emergency. Perhaps the explanation is to be found in the fact that testing activities under government auspices are largely in the hands of persons with a predisposition to interviewing and pencil-and-paper test techniques. Lack of familiarity with time and motion study practices may explain this current blindness to the benefits that may be secured from performance testing of the type we have developed. The condition may be only temporary, awaiting the impetus that may be furnished by work of comparable nature in industry. Fortunately, such work is in progress.

Book Reviews

Book Review Editor, MR. EVERETT VAN EVERY

University of California, Berkeley, Cal.

JOB EVALUATION AND MERIT RATING

By Eugene J. Bengé. New York, National Foremen's Institute, Inc: 1941. 103 pp. Price \$7.50

Reviewed by J. M. Telford

Mr. Eugene J. Bengé's new manual expounding the ever increasingly important subjects "Job Evaluation And Merit Rating" is worthy of the study of anyone who contemplates either a plan of job evaluation or merit rating. His discussion of these subjects reads like it was written by one experienced in meeting such problems.

Job Evaluation

In his paragraph on "Job Evaluation is Relative," Mr. Bengé makes it very clear that rate relationships affect employee contentment; that the pressure of rate influence is strongest within its natural organizational boundaries. This is important as it points to the job that should be done first, i.e., the determination of sensible rate relationships within a natural bargaining unit whether the unit envelops a wide or a narrow geographical area.

Very wisely Mr. Bengé cautions against the dangers in three commonly used methods, the "Job Ranking Method," the "Predetermined Grading Method," and the "Point System." But he indicates that in spite of their failing, these methods have served many a good purpose, for any method if applied judiciously, will probably do a better job of relating rates than by decreeing, or straight bargaining for wages, or by setting incentive standards with the expectation that high earnings from incentives cover up inequalities in the basic wage.

Mr. Bengé suggests the use of the "Factor Comparison Method" of job evaluation as being flexible and is one which tends to limit the use of personal opinion. By avoiding so far as possible a dependence upon personal opinion, the influence of human error and pressure methods is greatly reduced.

Mr. Bengé emphasizes the importance of listing job specifications carefully because they are the basis of the analysis, as well as a dependable record for future reference when it is necessary to provide new rates for new duty combinations or for expanding or contracting responsibilities.

The author's method of weighing specifications in order to rank jobs within groups according to factors is sound, for specifications describe the job as to skills, responsibilities and working conditions, and without a careful consideration of specifications, a reasonable rate comparison can hardly be made.

Mr. Bengé's manual does not provide a plan of job evaluation which is ready for

use by anyone who wishes to evaluate jobs. It is a guide as to principles which can be very largely accepted as fundamental.

Merit Rating

In the Merit Rating section of the author's manual he outlines the possible uses of job specifications for merit rating purposes under the man-job plan.

He first proposes to use job specifications to describe the kind of an individual needed to fill the job. There are two purposes in seeking the right individual for the job; one is its importance to the business, and the other concerns the contentment of the employee.

The author next proposes to use job specifications to guide both the employer and the employee in a training program. It is, of course, necessary for the employer to be aware of the employee's needs if he is to give him the help required for continuous improvement.

The third feature of the author's plan of rating possibilities is to match the job requirements against the individual's qualifications to determine if the employee is fitted to the job. Likewise, use can be made of the same data for promotional and guidance purposes.

Like the preceding section of Mr. Bengé's manual, the Merit Rating section does not outline a plan which can be put to use immediately. But he does suggest the direction one's thinking might well take in Merit Rating, particularly if a Job Evaluation program has previously been undertaken.

DESIGN FOR INDUSTRIAL COORDINATION

By Robert W. Porter. New York: Harper & Brothers. 1941. 249 pp. \$3.00

Reviewed by Book Review Editor

In the words of the author the purpose of this book is to describe how and why the processes of business unite to form a balanced unit of production. He discovers a common fundamental resemblance in problems of administrative practice and points out common characteristics that are not only the differences in form of organization and the peculiarities of various enterprises, but are frequently the differences of executive opinion concerning the best method of securing what he calls "functional integration."

It is pointed out that companies frequently suffer from degenerative processes and then hope that time alone will correct the condition, clinging to secrecy as an antidote. The simple solution would seem to be that when we get the system of checks and balances so designed that each factor functions at its fullest power, and in no way impairing the other factors from giving out their fullest powers, then the design of coordination is complete.

By this time we have reached the middle of the text. The project is interesting

and worthy of careful exploring. But the reader is exhausted at this point. He's waist-deep in the wordiest managerial verbiage he would ever want to see. And the surprise is that a management consultant would feel disposed to dress up his wares in almost over-bearing terminology. For instance, as if to justify his style, we find this explanation:

"Our object in drawing a synthetic word picture of industrial coordination, in terms of its constituent organizational activities, was to show the manner in which the intrinsic character of industrial organization is subject to the technical (policy-performance-appraisal), jurisdictional (administration-management-operation) and functional (planning-production-inspection) processes of coordination and how the distinctive activities of an organization are accelerated or retarded according to the manner in which they are classified and integrated."

But for all its wordiness, the work has many compensating qualities. The author, as a management consultant, has probably lifted much of his field experience for this book. Chapters on Technical Design and Applying Technical Design are good contributions for executive thinking. They discuss the application of the human element and the traits of successful management in the huge field of management coordination.

If you would continue your advanced study into the theory and practice of management, you will enjoy this book. There is good experience and counsel in its pages (whether or not you have ever had occasion to engage a management consultant) and it may give you some insight into how one man at least goes about analyzing the organic functions of business administration.

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Estimates Indicate that the Output of War Materials by Workers in English War Factories is Only 50% of Its Potential. This is Due to Mistaken Government and Management Policies. Let Us Make Sure that We Do Not Reduce American War Material Production in the Same Way.

How *to* Increase War Production

BY CHARLES S. SLOCOMBE

Personnel Research Federation,
New York, N. Y.

WE SEEM to be in the midst of a welter of legislative proposals for fixing up problems that vitally affect labor—wage and price controls, control of unions and strikes, increased social security taxes, possible compulsory savings, easing up on the wage and hour law, and rationing of consumer goods. As the labor supply tightens further, owing to increased production, and expansion of the army and navy, we shall have some form of limiting labor mobility, and possible freezing men in their jobs in war industries.

Damage to Efficiency

SO FAR we have seen little discussion of the effects of these on the efficiency and morale of labor; and little discussion of the effects which such measures have had on that efficiency in other countries, in which such laws and regulations are in operation.

The grave damage to worker efficiency and morale, through such acts and regulations, and their manner of administration, that has taken place in England has come out recently in an English government report. This has aroused considerable public discussion over there, much critical word slinging and criticism of the government—highly serious matters adversely affecting the vital necessity of unified effort in the defeat of Hitler.

We should know about these things, so that we may avoid such a result here, as far as is humanly possible.

Absenteeism from work is the problem that has received most attention. In some big munition plants reports show that on weekend shifts, as many as 32% of women employees, and 18% of the men fail to turn up for work. It is obvious that a plant cannot be run efficiently, with this taking place regularly.

General women absenteeism averages about 20%, and men's from 10 to 15% regularly, with the big rise taking place on Saturday and Sunday. (Sunday work is at double wages.)

Too Long Hours of Work

TOO LONG hours of work is given as the basic reason, though it is tied in with many other factors. To our mind it is highly probable that the hours would not on the whole be found unendurably long, if other matters affecting the workers were properly taken care of.

There is 24 hour operation, with employees working an average of 8 hours per day, 7 days per week. There are several reasons given for absenteeism.

Women, the majority of whom are married, are trying to tackle the long hours in the factory job, as well as look after their homes. This necessitates absolutely at least one day a week off for shopping, and housecleaning.

Where the husbands of these women are working, as most of them are, there is an absence of incentive to earn a full week's pay.

English Traditions

THERE is a deep rooted tradition among the English working folk that Saturday night is to be a night of recreation, often at the local pub, which both husband and wife attend, as a social gathering. Sunday is also traditionally a home day, so that if either husband or wife are on these shifts both will be absent from work. Even the dire threat of Hitler has been unable to overcome this tradition.

Transportation is another important factor affecting absenteeism and fatigue. In addition to long hours at the factory many employees may have to spend, daily, two to three hours getting to and from their bench.

Housing is away from factories, and workers may have to walk 3 or 4 miles to the factory gate, and another mile inside to their bench. Others living further away may have bicycles. Few have automobiles, but could not use them because of gas rationing. Local bus and street-car companies have in many cases not yet caught up with this problem, and the shift scheduling involved.

Another problem discovered was a lack of proper canteen or cafeteria facilities in plants. In many cases no heating or cooking facilities are provided for warm meals and hot drinks. In other cases the heating and cooking facilities are so far away from the canteen that the food or drink is cold by the time it gets there.

Cause of Fatigue

THIS is basically related to fatigue, absenteeism and reduced output. Even under peace time conditions in England, it has been shown that many women workers get up early, grab a cup of tea or coffee on the run, then walk miles to work, and put in four hours work before lunch. A fast drop off in output towards the end of the morning is an inevitable consequence. The drop off in the afternoon is less pronounced, but in so far as the worker then has a fatiguing walk after work, the cumulative fatigue effect accumulates as the week goes along.

Under war conditions there is no arranged weekend rest and recuperative period, so the fatigue effect accumulates to the breaking point, and the worker just takes unauthorized time off, and absenteeism mounts. This factor affects both men and women.

Price fixing, and rationing of the things that workers would ordinarily buy with their increased earnings, but cannot, have been found to have the effect of destroying the financial incentive. The worker sees no sense in unduly fatiguing himself, for more wages, when he cannot spend them anyway.

Wage Incentive Reduced by Taxes

INCREASED social security taxes, and income taxes, which are deducted weekly from the pay envelope, plus the Keynes compulsory savings plan by which a percentage of each worker's earnings is deducted weekly, most of which things he only vaguely understands, also tend to make some workers think there is no personal advantage in working full time.

Workers on piece rates find that through interrupted flow of work, they can handle all the work allotted to them in less than hours fixed for attendance at the plant, and so absent themselves for shifts. They fail to understand that this increases the difficulties of management in maintaining an even flow of work from department to department.

Then, of course, there are those who take time off during the week, so they can get more overtime on weekends. And those who fight Hitler too hard in the bar-room weekends, and have to rest up Monday to recover.

These are the conditions affecting workers in the better factories, operating workers on a nominal 56 hour week. It will be seen that on the average men are actually working 50 hours and women 44 hours.

We have no detailed report on what happens in factories working longer hours than this. A general statement says that workers are allowed to turn in as much work in 70 hours as they previously did in 50 hours.

Without wishing to unduly lengthen this tale of woe, it seems advisable to clear up other matters that have arisen, mainly due to government regulations.

State Employment Service Takes Over

UNDER various orders and decrees, the state employment service has assumed tremendous powers.

With a tight labor market, an employment manager had little choice in the selection of workers. But now, he is not permitted to hire a worker, unless the man has a card from the state employment office. This virtually means that the selection of workers is taken away from the employment manager, and monopolized by the government agency.

Management may not dismiss a worker for cause, or any other reason, without the consent of the state employment service. Workers desiring to be released from their present job to go to another, for personal or other reasons, must get the permission of the government officer. Sometimes good workers deliberately commit serious misconduct in order to be fired, when they cannot get permission to transfer. Even then they may not get it, and management is stuck with such a worker on his payroll.

Workers Become Pawns

IN SOME cases recently, workers have been ordered to leave their present jobs, in less essential factories, and go to work in other plants designated by the state employment agency. This compulsory designation of where a man may or not work has aroused great resentment on the part of labor. Despite agreements to the contrary they have struck, against being so moved about as pawns. The basic oversight on the part of the authorities, is that the workers concerned have not been consulted. Had they been there is little question that they would have consented to do their best in the war industries, but they resent being ordered about like slaves.

On the whole England has grave reason to be dissatisfied with the output of her war factories. We do not think it is exaggerating to say that, taking all factors into consideration, from a labor productivity standpoint, and apart from supply bottleneck problems, *the output of labor is not more than 50% of its potential.*

English Production

AMERICANS must not think, after consideration of the above, that English workers are not doing their best in the production of war materials, and are depending upon American factories, through the leaselend program, for war materials. Statistical figures indicate that America will not equal England, in its production of war supplies, for another three months. This is in spite of the fact that America has a working population three times as great as that of England.

Great strains will appear in our labor situation when we begin to approximate the amount of war material production per worker that England has today. Let us

learn from her experience, and avoid as much as possible, mistakes that increase the strains.

What are the proposed ways of dealing with this situation? How far do they look as if they will be effective? What are the lessons for America?

There has been the usual outcry in the Tory press in England, and in public speeches, that war workers are "Work Shy," "Slackers" and generally unpatriotic individuals, that they should be universally punished, that there should be more government decrees enforcing output, and/or workers should be conscripted and made to work like soldiers are made to work and fight.

Soldiering

TAKING the last item first, the comparison with the army, probably ever since there was a soldier in the world, there has been the word "soldiering," and we all know what soldiering on the job means. A soldier has been known since the beginning of time as a man who does as little as he possibly can, under any circumstances. He is also the most expert man in the world at doing this little, when he cannot avoid it, with as great a show of effort as possible.

What kind of foolishness is it to suggest that these traditions should be brought into factories? If you put a soldier standing over a worker with a drawn bayonet, as has been done in some American factories already, the chances are the soldier would put in his time instructing the worker how to loaf—in so far as the worker might not already know.

Another misconception about soldiers is that they fight on to the death, without regard to fatigue or exhaustion. In very serious engagements, and where supply lines are difficult to keep up, they have, for short periods, fought bravely under conditions of long hours and fatigue.

Army on 40 Hour Week

BUT this is not generally so. In the last war, army regulations provided for men in the front line to be in the trenches 10 days, and back resting 5 days. This means an average forty hour week. Admittedly the men were under emotional strain, but except for special engagements, most of the time they were doing nothing.

Anyone who takes time to think about it, and looks at the present war will realize that sharp engagements last only about 10 days, and time has then to be taken out by both sides, for reorganizations, during which the fighting force are more or less at rest. The campaign in Libya, at the time of writing, is an excellent example.

The elaborate provisions made by the army, dealing with supplies for soldiers, is ample evidence of the fact that they know very well that they cannot get soldiers to maintain their morale or fight, unless they are given good food, rest and not unreasonable quarters.

The probability is that if English workers were as well looked after as their army is now, their factory output would increase. This is not an argument for conscription of labor.

Pepper Uppers

THE next method suggested, and which is being tried, is to have expert speakers on hand, to go through the factories and make pep talks during the lunch hour. It would be far better to let the workers rest in quietness.

The method tried is to get factories to work shorter hours. But government departments are not agreed on this, some such as Labor advocating hours not in excess of 56, others advocating very long hours. Those primarily concerned with output, such as Supply departments and the army, are in the latter category. They still think that hours mean output, in spite of evidence to the contrary.

There is talk of increasing piece work, instead of straight time. But this works both ways, and as English labor and Trade Unions have never liked piece work it would lower morale, if forced on them now. There are also other difficulties in such a changeover on a major scale. Also, as seen above, high earnings have lost some of their force as an incentive to work.

There is an order in which personnel men must report to the National Service Officer "Behavior Impeding Production." A worker may be brought up before the Officer, and a kind of court held, in which the man may be aided or represented by his union. Coercion and possible prosecution of the delinquent worker are provided for.

The basic problem that this English experience exemplifies, is that of reconciling production and shift scheduling with the limits of human physical endurance over a long period, and the absolute unavoidable work that employees, particularly married women, must do outside the factory.

12 Hours Work—45 Minutes Rest

A SCHEDULING of the day of a typical working wife without children, taking into consideration, preparation of meals, getting to work and back home, getting in a few groceries, light housecleaning, shows that she is on her feet from 6 am to when she sits down for dinner at 6 pm—12 hours—with only 45 minutes rest.

Now it seems absolutely beyond human endurance for a woman to keep this up seven days a week, week after week. It will be noted that this provides no time for washing, house cleaning and marketing for staples, home furnishings, clothes, etc. It makes no allowance for extra work that is involved where there are children.

So the woman absolutely must be absent from work on some shifts to take care of home life requirements. The average absenteeism for woman is $1\frac{1}{2}$ shifts per week. This seems quite reasonable.

For men the day is not so strenuous, except in so far as they are probably required

to do a certain amount of overtime work to make up for those absent. Men take off about 6 hours a week on the average.

Absences Reasonable

IF THESE be regarded as reasonable absences in view of essential home needs, and a minimum provision for recreation, then it seems that management should be realistic about it. They should schedule woman's hours at not more than 44 per week, and men's hours at not more than 50. Assignment of shifts and work should be made in accordance with these hours.

These hours may be increased for unmarried men and women, if a study of their exfactory work shows that they can put more time in the factory.

There does not seem to be any point in management scheduling their operations and hours, without regard to the exfactory work of employees. If it does so, it forces absenteeism on the workers. Under present conditions, this is unregulated and unpredictable absenteeism, which makes an integrated and smooth flowing production of goods from department to department absolutely impossible.

Reduction in Absenteeism

WHEN hours are scheduled in accordance with human possibilities, then absenteeism should be reduced to unavoidable absences due to sickness, accident, etc. And factory operations can proceed with uninterrupted schedules.

In so far as there are workers who absent themselves from work for what are called "frivolous" reasons, as well as those that do so for legitimate reasons, there is no way of distinguishing them, at present. But if hours were properly arranged to take care of the needs of the latter group, there would appear a group discipline among the workers, so that "slackers" would be forced to behave themselves, by other workers.

In speeding up production, much more than we have yet, we shall run into this same problem. Let us learn this lesson from English experience, and avoid doing as they have done.

Problem in America

WE IN America are as far behind in our provision for transportation and housing in relation to expanded plant operations as they are in England. Already serious problems have arisen which will intensify, rather than diminish as time goes on.

While most American workers do not walk or bicycle long distances to work, many of them have to drive long distances, in congested traffic, in some places this taking an hour or more. American women workers often ride long distances in overcrowded trolleys and busses. The fatiguing effect of this is not inconsiderable.

We have congestion on roads, which is particularly bad near new factories; insufficient parking spaces, so that roads near factories must be used for parking; workers must walk longer distances from where they park their cars to the factory gates, increasing the fatigue already due to the long distances that must be walked to the bench inside the factory gate, owing to the unavoidable sprawling design of newer factories: employees must drive longer distances to and from work (in some places they are now driving 40 miles each way—incidentally thereby increasing their cost of living at least \$2 a day for gas, oil, etc.)

The inadequacy of proper canteen and cafeteria facilities in England is most serious. In most American factories it is better, if not adequate. This is allied to the problem of rest pauses, which are little understood in England or here.

In England a typical case would be of a woman, working in a munitions factory, getting up at dawn, perhaps spending 15 minutes over breakfast, walking or perhaps cycling three or four miles through a cold dreary drizzle to the factory, then working for 4 hours, having a cold basket lunch, with no hot drink, then working another 4 hours, walking or cycling home again through the cold drizzle, possibly stopping to pick up a few groceries on the way, and then preparing the evening meal of reduced rationed food.

Fatigue Studies

NO PERSON could stand up to that sort of life very long, yet at present they are required to do it every day of the month. Even if they could, how much strength could they put into their work?

From the time many workers, under present conditions, have a light breakfast till their lunch time, is over 5 hours. Dr. Haggard of Yale, in his studies of American factory output, in relation to rest pauses, with some nourishment, found that where there is no such provision, output starts to fall off seriously in the middle of the morning. It picks up to normal again after the lunch break, and then after 2 hours starts to fall off again.

When workers are given time out for some nourishment, hot in the winter and cold in the summer, in mid-morning and mid-afternoon, just at the time when output would begin to fall off, the decline is avoided.

The plight of English workers, through lack of proper canteen provisions by management, is serious, not only because it reduces sorely needed war material output, but because it continually reduces their vitality, enjoyment of life, and determination to win.

English managements, or most of them, have failed to realize that proper canteen facilities, and provision for their use, are as essential to maintained production as are proper tool room facilities.

Workers Strained to Limit

LET us be sure in America that we recognize this fact. Also that in lengthening hours we see that proper provision is made for rest periods. If we do not we shall be just kidding ourselves that we are getting more production because we are working longer hours.

The whole matter may be summed up by saying that, in the national emergency, workers must be strained to the limit to get maximum production. But if, through ignorance of essential human needs, an attempt is made to strain them over the limit, production must inevitably fall off.

No Union-Management Cooperation

ONE of the things, that runs like a thread all through the English story, is that of the cooperation of unions with management and the government. So far, the government has admitted high ranking union officials to the Cabinet and to policy forming boards, and lesser union officials to local committees dealing with labor supply, food rationing, fuel supply, etc.

While the unions have appreciated this opportunity to cooperate, they have been severe critics of government, and business methods and motives. They have also resented the fact that in many respects their job has been to force their membership to accept coercive regulations and orders, determined by bodies on which there is no labor representation.

By and large, English managements have absolutely refused to admit the cooperation of unions. About the only thing they have asked the unions to do was to use their influence to cut down absenteeism. This the unions have tried to do, but without avail.

Thus English managements, by refusing the help of unions in getting maximum production, and insisting on setting up hours, and shifts, and assignments of work themselves, without adequate knowledge of, or giving consideration to the elementary problems of human living, have succeeded in reducing the output of war materials.

Where Unions Most Useful

IT is in this field that the unions could be most useful, from their intimate knowledge of worker customs and traditions, problems of working married women outside the factory, worker transportation difficulties, their housing difficulties, their eating habits, their recreation needs, their understanding or misunderstanding of social security taxes, income taxes, and savings taxes.

Had they admitted unions—as the people with most knowledge of these matters—into active cooperation with them in the adjustment of hours and working conditions, it is probable that managements would not be in the mess they are now.

The solution of these problems could well have been handed right over to the local unions, to make recommendations to management, or the unions be asked to sit on committees jointly with management representatives.

The English unions are quite sore about this. They and their members want to work to the utmost to defeat Hitler and, we think rightly, curse the English employers who, in their dumb ignorance of human limits, and their traditional habit of ordering workers about, actually block the efforts of workers to produce in maximum quantities the materials of war necessary to defeat Hitler.

American managements, so far, have behaved just as English managements have done, in belittling the suggestions of unions in matters of cooperation, and refusing their offers of cooperation.

CIO Plans Not Accepted

ONE of the most pitiful aspects of the last convention of the CIO in Detroit was the plaint of the delegates that they, and their members, wanted to do everything possible to cooperate in getting maximum production in war industries, but that every offer of cooperation, and every suggestion they made, was turned down by government and management.

If we admit that their Reuther plan for the automobile industry, their Rieve plan for textiles, and the Murray Industrial Council plan were over ambitious, these plans should not have been thrown back in their faces as they were. They should have been used as bases for discussions of ways and means of union management cooperation in the emergency.

The problems which the first two plans mentioned above were designed to solve are at present being handled by an ex-personnel man on Sidney Hillman's staff, in association with the managements concerned. And labor is supposed to submit to their decisions, without protest.

This Is All Wrong

THIS is all wrong. It is not democratic—it is dictatorial. It slaps labor in the face—so causing labor to slap back.

Now that we are at war, American managements should learn their lesson from English experience, and promptly call in the unions to tell them that the company recognizes the union's desire (and that of its members) to work to the limit in producing war materials, and wishes to work out an agreement with them as to the most suitable areas of cooperation. Then purely management functions would be delineated, the functions of the union similarly agreed upon, and the areas in which joint effort would be best, marked off.

Only by such means can production come near its maximum potential. If this is not done America will find itself riven by the conflict of labor and management,

both of which wish a maximum output to defeat the enemies of the American system.

Government Regulations

LEGISLATION and government regulations regarding labor problems are not yet defined in America. But there is talk of legislative provisions controlling strikes, and the closed shop issue; price and wage fixing; increasing social security taxes; compulsory savings; and according to the President, instituting the seven day week for workers. Labor supply problems, including the transfer of workers from consumer to war industries are also under consideration, as to means of accomplishment.

But throughout there is no mention of labor representation in the devising of means of dealing with these problems. They are difficult problems to deal with, but that is no reason for their being handled solely by Washington brain trusters.

If we are to avoid having our war industries operating at half speed, as they are in England, we must bring into the picture at all levels, from the individual factory, up to the War Cabinet, proper and adequate labor representation.

Furthermore, each government enactment, each government regulation, and the policy of each company engaged in war production, concerning labor, must be based upon adequate study and thought as to its real, rather than its apparent, effect on the output of war materials.

Many Employers Have a Belief that if Only the Government Will Do Something about Labor Unrest All Will be Well. Employers Will Not Get Rid of Their Problems by Asking the Government to Carry the Load.

Dealing *with* Organized Labor

SUMMARY OF AN ADDRESS

By J. C. CAMERON

Queen's University,
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AT THE present time when strikes and industrial disputes begin to hamper the war effort in an individual establishment, the common attitude is that some kind of board ought to be appointed to conciliate, investigate, or in some other way bring about peace. But those familiar with the work of such boards know that their members are not likely to be any wiser or more capable than many of the leaders of industry or labor who marshal the forces of conflict.

Settlement an Intricate Problem

THE settlement of a labor dispute is always an intricate problem, and the mere fact that there is a board to investigate or render opinions, is not enough to compose difficulties, and to avoid or settle strikes. Although the prestige of a government board and the mediating policy of its personnel are extremely important, these are not sufficient to restore or maintain industrial peace. I should not advise any employer to turn his problem over to a board until he has exhausted every other possibility for settlement.

Many employers have a belief that if only the government will do something about labor unrest all will be well. I suggest to you, however, that employers will not get rid of their problems by asking the government to carry the load. Employers are as much responsible for the maintenance of industrial peace as they are for industrial progress.

Government Policy

ON JUNE 19, 1940, the Canadian Government in Order in Council P.C. 2685 enunciated certain principles for the avoidance of labor unrest during the war, and recommended them to employers and employees in the belief that their adoption would make for the avoidance of industrial strife, and for the utmost acceleration possible in the production which is so essential to the war effort. The most important of these principles are as follows:

- (a) "Employees should be free to organize in trade unions, free from any control by employers or their agents. In this connection attention is directed to the provisions of . . . the Criminal Code, under which it is declared to be an offence, subject to prescribed penalties, for any employer or his agent wrongfully and without lawful authority to refuse to employ, or to dismiss from employment, any person because of his membership in a lawful trade union, or to conspire with other employers to do either of such acts;
- (b) Employees, through the officers of their trade union or through other representatives chosen by them should be free to negotiate with employers or the representatives of employers' associations concerning rates of pay, hours of labour and other working conditions, with a view to the conclusion of a collective agreement;
- (c) Every collective agreement should provide machinery for the settlement of disputes arising out of the agreement, and for its renewal or revision, and both parties should scrupulously observe the terms and conditions of any agreement into which they have entered;
- (d) Workers, in the exercise of their right to organize, should use neither coercion nor intimidation of any kind to influence any person to join their organization;
- (e) Any suspension which may be made of labour conditions established by law, agreement or usage, requisite to the speeding of wartime production, should be brought about by mutual agreement and should be understood as applying only for the period of emergency."

On December 16, 1940, the Government, in Order in Council P.C. 7440, used the following words:

"If the Government through an extension of the principles of the Fair Wages Act were to attempt to determine wage rates and other working conditions in all those industries engaged on war work, innumerable arbitrary decisions would be involved and the institutions and practices of collection bargaining *to which it is the declared policy of the Government to assure freedom* (P.C. 2685, June 19, 1940) would be rendered superfluous and labour organizations deprived of their legitimate functions."

No Change in Legal Status of Unions

THE Orders in Council just cited did not make any comprehensive change in the *legal status* of labor unions. They did, however, clarify to some extent the Government's position with respect to collective bargaining and, what is more

important, they undoubtedly encouraged labor union officials to believe that it was not only the declared policy of the Government to assure freedom to the institutions and practices of collective bargaining, but that it was also the Government's intention to compel employers to bargain with trade unions.

Though the Government's declarations did not change the *legal status* of trade unions, the declarations reflected and strengthened the popular conviction that it is wrong for employers to interfere with the organization of their employees; that it should not be necessary for men to strike in order to be free from interference in the exercise of their right to form unions for the furtherance of their common interests. Further, the declaration has been interpreted by some observers as an indication that the Dominion Government believes that the direction of present social, political and economic forces, and the trend of legislation in democratic countries, is towards larger opportunities of labor for organization and improvement of working conditions.

Judging by the history of Britain, Australia, New Zealand, Sweden and the United States, the assumption is warranted that in Canada the rights and demands of workers will be accorded increasing recognition. The conclusion seems inescapable that in Canada, as in other democratic countries, the general trend in the labor movement will continue, that workers will continue to organize on a large scale, and that employers must adjust themselves to this trend.

Common Aim and Common Interest

IT is of cardinal importance that *all* who work in a given establishment or concern should have some sense of a common aim and common interest. All who are in the individual factory should get together: all should have the inspiring feeling that they are members of one body. That may seem to turn the scale in favor of vertical, not horizontal, organization.

Drop Illusions

INDUSTRIAL democracy is a fetching phrase; but, for the present at least, we must drop illusions about the prospects of anything like democratic control in the industrial sphere. Capitalistic management and the wages system continue their way. These are the conditions under which we now live, and to which we must adjust ourselves. If we are to have better industrial relations now, it must be with an acceptance of the industrial system as it now is.

Accepting then the existing situation in its essential features, what do we find? Plainly, I think, particularly for the last five or six years, there has been a very active movement by employers which looks toward an enlistment of the workers' interests and sympathies, and thereby a humanizing of their relations with their employees.

In considering the promise of this movement as a whole, it is pertinent to ask this question at the outset. Does not the growth of immense producing units necessarily stand in the way of any human gains from all these arrangements? Is not a huge concern necessarily impersonal? Can a sense of real association, of personal interest, develop between a gigantic company and its tens of thousands of employees? The answer, I believe, is not necessarily in the negative. The modern factory manager can still profoundly influence the temper and attitude that runs through his concern, huge though it may be. Those plans which aim to link employer and employee are on right lines. The complexities of modern industry are no insuperable obstacles to their working well.

Does it follow, by inference, that trade unions are on the wrong lines, that labor organization from the outside cannot be made to work well? Not so, I think. An antithesis of this sort by no means disposes of the many-sided questions about labor organizations.

True, it must be admitted that the present trade union organizing campaign does not seem to observers to be conducive to industrial peace at the present time. The country is at war and any disturbance in production because of union organization receives little sympathy. Perhaps, too, the very attainment of a certain degree of power and control by the unions has served to demonstrate that the workers as a body are not able to go as far in the maintenance of industrial peace as they and their friends had hoped.

Open Shop Not Last Word

IT DOES not follow, however, that because of present difficulties employers are justified in trying to get rid of unions. Open shop is not the last word in industrial relations.

We can best bring to mind what the labor union means to its members and their sympathizers, if we reflect on the meaning of a position taken by many employers—that they will deal with their own men only. They are quite willing to meet their men face to face, and come to amicable understanding with them; but no outside organization is to interfere with their business. What this in fact signifies is that the employer wants to deal only with persons over whom he has control. It ignores what the job means to the worker, and the power the employer possesses in his ability to put an end to the job—his right to discharge.

There Are Unions and Unions

IN NOT a few cases unions act in a manner which justifies the employer in maintaining that he is acting for the common good when he tries to get rid of them. Just as there are employers and employers, so there are unions and unions. Their leadership very often is poor. The failure of the unions to maintain a steady high

grade of leadership may indeed have a deeper meaning than that which is shown in the tactics of employers, and in their endeavors to set up more pliable or more reasonable substitutes. It is allied with the whole matter of the fluidity or fixity of social classes, the opportunities which the conspicuously able among the workmen have for rising and becoming members of the employing class. While some workmen may be, as some employers say, unruly, short-sighted and greedy, how can they be expected to be otherwise than selfish in the society in which they find themselves?

Trade union leaders have not always supplied an adequate counterbalance of judgment and reasonableness; nor have workmen always had sweet and reasonable employers. Hence, to repeat, the employer is not entirely without justification in trying to get rid of trade unions. But if he does so, then the bow is bent the other way. Once the union is put aside, the whole situation is pretty well in the employer's hands. He may disguise it, deny it, be quite conscientious and well-disposed, but he is a master, completely uncontrolled. We may have not only paternalism, but something which savors of despotism.

Ultimate Future of Unions Unknown

THE trade union or industrial union has not outlived its usefulness. It is under fire, as we know, from both sides. The workmen themselves in many instances would replace the familiar type of labor organization with something larger, more powerful, more ambitious. The extremists among employers would destroy it once for all. On the ultimate future of trade unionism we must speak with as much reserve as on the ultimate future which all forms of social organization will take. Who can peer into the future? All I can say is that it is an instrument which is here, has proved its worth, and is not to be shoved aside or destroyed. It is my belief that trade union membership will steadily increase in Canada. Those who are entrusted with the formulation of industrial relations policies would do well to recognize this trend, and to work with it rather than against it.

Recognition of Possible Good

RECOGNITION of the good which independent labor organizations (the trade unions) can bring is not inconsistent with a recognition of the good which other forms of organization can bring side by side with them. European experience, and especially British experience, brings abundant proof that the independent union can take its part in the development of other things than mere bargaining strength and courageous negotiation. Those of you who read extensively on these matters will remember numerous instances in which unions have taken the initiative in constructive measures, and in which able and far-sighted managers have welcomed their overtures and sympathetically enlisted the goodwill of men. It is necessarily

implied in all joint action of this kind that the employer shall not proclaim, that no outsider is to be permitted to come between him and his men. So long as the men feel (and on many matters of vital import they must often feel) that their own organization and their own spokesmen are essential, these cannot be brushed aside.

Conference and negotiation with the business agents, however, are not inconsistent with conference and negotiation within each concern. The initiative towards a combination of the two kinds of contact may come from one side or the other. The impelling force may be the memory of bitter experience by one party or the other.

Cynics often say that it is always the weaker party that wants peace; that the initiative to arbitration, or friendly conference, or a new kind of relation, always comes from the side that sees defeat staring it in the face. It is not quite so. Behind it all is, I do believe, something more than weariness or despair. And something better there must be if lasting good is to be achieved. From whatever side the initiative comes, and whatever the original impelling motive, no betterment can endure unless there be on both sides a genuine spirit of co-operation.

Public Relations in Strike Situations

IN CASES where labor unrest has been permitted to reach an acute stage and threatens to break out into open conflict, or perhaps to precipitate a strike, management ought to take stock of the situation and come forward with a carefully considered programme. The employer must adjust himself to the attitude of the press, as well as to the opinion of the public, and must adopt a public relations policy which can stand the test. Many employers apparently fail to grasp the importance of avoiding a widening of the breach between workers and themselves, and are blind to the fact that the resentment and determination of their employees are increased by their public utterances. It is difficult to see what an employer hopes to gain in the early stages in an industrial dispute by publicity. On the contrary the one safe course available to the employer who is inexperienced in dealing with unions, is to refrain from talking for publication.

Outsiders in Negotiations

VERY early in the dispute the formal demands of the union reach the employer. These demands describe the conditions which management should meet in order that the controversy may end. The demands call for an answer. The answer is often given to impress the public, but rarely does it impress the strikers. Fundamentally demands are all alike. The union wants recognition for itself, and improved working conditions for its members, i.e., it wants to be recognized as the sole bargaining agent for the workers and to obtain higher wages, shorter hours, seniority rights, paid vacations, etc. In many cases the employer's answer to the demands is—never! The employer says he is willing to meet with his own em-

ployees, as hitherto, to discuss complaints and grievances, but he will not deal with outsiders. He questions the right of the organizers to speak on behalf of his employees, states that he has never in the past refused, and is not now refusing, to meet his employees to discuss wages and working conditions; and that only recently a substantial increase in wage rates was made to all the workers.

The union in demanding that it be recognized as the collective bargaining agency of the workers points to P.C. 2685 and P.C. 7440. The employer replies, usually in a statement to the press, that he is willing to meet a committee of his workers for a discussion of their problems. If, says the employer, a meeting of this kind is not true collective bargaining, how can such a thing be brought about by the intrusion of outsiders, troublemakers and communists. Thus the fight proceeds. It would seem unnecessary for me to give you a blow-by-blow description. Some of you have been in the ring, and if you have not you have had a good ring-side seat while the battle was in progress.

Aside from the question of wages which are now covered by P.C. 7440, the demand for other working conditions seldom offers insuperable obstacles to settlement. Hence, if the employer is willing to grant a measure of recognition to the union, the dispute can be settled without much trouble.

It is evident that management is still far from applying to its labor management problems the same spirit of bold exploration and experimentation that it applies to its technical problems. The proof is to be found in the failure of many employers to recognize that there is a distinct set of economic and governmental problems involved in the management of labor, which cannot be handled by the principles generally applied to employment and service management. This distinct set of problems involves such controversial issues as wages, hours of labor, shop rules, and so on. Many managements either deal with these questions as functions of the production departments, or include them with the problem of employment management.

Economic and Political Questions

BUT a truly scientific analysis must recognize that wages, hours, and shop government involve economic and what might be called political questions, in which self-determination, the consent of the governed, and a voice for the wage earners in determining the question, are involved. When completely developed, the science and art of Personnel Management should not only integrate, under centralized control, the movement of the personnel; it should provide proper working conditions through its welfare or service policies; it should also make provision for something like a bill of rights, with a legislative organization to represent the workers, and some kind of judicial tribunal for the protection of the rights of both workers and management against encroachment by either party.

My recent experiences on Conciliation Boards and in the Department of Labor

at Ottawa support my conviction that most employers do not want to do what is wrong, nor do the wage earners. Both want to do what is right, but in labor relations there is no one standard of what is right, no common standard of justice by which they might be guided.

Contracts and constitutions should join employers and employees in one organization, governed by rules that embody their views on what is justice, at least for the time being. They should fix wages and hours of labor, determine what is fair treatment, fair discipline, fair discharge. They should provide joint committees and arbitrators for applying the agreements and rules to specific cases. The decisions made by these should gradually solidify into codes and laws that all understand—the combined views of wage earners and employers as to what is just, in industrial relations.

Summary of Main Points

As a final word I should like to reiterate the main points which I would like to leave with you.

The trend in all democratic countries is towards greater participation by employees, through their trade unions, in the determination of the conditions under which they are to work and to live. Public opinion in these countries is more and more coming to consider such participation both just and desirable.

The Canadian government has declared itself in favor of this development by expressly recognizing the right of employees to organize freely in unions of their own choice, and to negotiate with their employers. While this policy is in the form of recommendations only, it is quite clear that the government desires that employers and employees adopt these recommendations, and that it believes their adoption would result in better industrial relations.

It is also clear that organized labor in Canada is taking these government declarations as promises. Until they are implemented, Canadian organized labor is going to resist any form of government regulation strongly.

It is futile for employers to attempt to avoid the responsibility for working out their own relationships with their employees, by appealing for the assistance of government conciliators or Conciliation Boards. Contrary to the belief of some people, Conciliation Boards have no magic formula for the establishment of industrial peace.

Management's Own Problem and Responsibility

EMPLOYERS must recognize that the problem of working out satisfactory relationships with the organizations selected by their employees is their own problem and responsibility. Increasingly employees are selecting recognized trades and industrial unions. Employers must adapt themselves to dealing with these lawful

unions, even although they may have objections to the policies or the leaders. Such dealings may be a new experience to many employers.

If employers accept unions only under protest in the first place and with the intention of circumventing them at the first opportunity, the experience is certain to be an unhappy one. If, on the other hand, employers assume some responsibility for working out a satisfactory basis for relationships, the union is likely to meet in the same spirit. I have no evidence to support the belief that men become un-co-operative on joining a union, any more than they do when they join an employers' association or a professional institute.

Labor organizations are now free of legal responsibility. In all their general functioning, public authority has hitherto not interfered, because they are regarded as private organizations conducting private bargaining with private employers. The new status which trade unions are attaining will, in time, make it necessary for the Government to see that they assume responsibilities, as well as privileges. Such regulation, however, by the Government must wait upon the time when employers recognize and deal with unions, as the representatives of their employees, and permit the organizations to function in their plants.

The above is a summary of an address made by Mr. J. C. Cameron, Head of the Industrial Relations Section, Queen's University, Kingston, Ont. at their Sixth Industrial Relations Conference.

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Out of the Welter of Half Truths and Misconceptions that Surround the Position of Information Man in the Federal Government Service has Developed a Need for a Statement of the Government's Information Problem and a Suggestion for Its Solution.

Information Men *in* Washington

BY T. LEFOY RICHMAN

United States Housing Authority,
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AN INFORMATION man is like an organist. He plays on an instrument whose huge pipes are the press, radio, motion picture industry, lecture platform, and all the varied media of public address and communication. Needless to say, he must know his instrument intimately: its every stop and pipe, its keys, its pedals, and its bellows, its obligatos, its tremolos, and its profundos.

His audience is the public: sometimes all the public, sometimes specific groups, sometimes isolated individuals. He must know this audience: its whims and caprices, its composition, and its every reaction.

Say Things That Will Be Heard

IT is his business to say things which will be heard and understood by those he wants to hear them; or, to show things to those he wants to see them. Finally, it is his business to withhold things he wants withheld.

Information once had a static connotation. It was something that clever people seemed always to have and dull people seemed never to worry about. It was what you sought when you didn't know something. Now it is something which seeks you. It is dynamic. It inspires and answers certain questions, adroitly luring the mind away from others.

And the Government, with its wide variety of programs depending upon public understanding and support, is in need of individuals who can say, show, and withhold gracefully and expeditiously.

Although thousands of applicants daily throng Government personnel offices, representing the broadest assortment of skills, crafts and experiences, capable in-

formation men are at a premium. Schools cannot produce them, although every year college curricula offer more and better courses in the information field. Where are they to be found?

Press Is Chief Outlet

THE chief outlet for Government information is the press, and since the preparation of press material involves sharp, clear writing, newspapers offer the most fruitful field for Government information personnel. Young men in the newspaper field are well qualified—especially those from large metropolitan dailies who have had experience covering a wide variety of stories and preparing accurate reports quickly. The difficulty is that young men of promise either stay in the newspaper business and go up, or leave it for more lucrative positions with commercial firms. They do not fancy the low salaries and routine work of the Government.

Newspaper men who do drift into Government service (those who take top positions excepted) frequently have been only mediocre journalists, and are no more successful in the Government than where they were. The same is true of radio, movie, and advertising men.

Not So Well Paid

MOREOVER, top-flight information men in private business are well paid. Information men in Government are not so well paid. Salaries range from \$2,000 a year to \$6,500, the majority hovering around \$3,200. Consequently, experienced members of a well-paid profession who are willing to accept not-so-well-paid positions in the Government are to be viewed with a certain amount of suspicion.

The Government's quest, therefore, is not for a particular kind of experience, but for a particular kind of man; and this has been completely disregarded by almost everyone who has expressed himself on the subject. A recent description of the most desirable Government information man, for instance, listed five qualifications, all having to do with newspaper experience, and all neglecting the very fundamental consideration of the man, himself.

The man can be considered only in terms of the job. What is the Government information man's job? Through what channels must he achieve his purposes? What are his limitations? What are his prerogatives? Once these questions are answered, it will be easier to approximate the kind of man to do the job.

Having defined the information man's job as "saying, showing, and withholding," I must plead guilty to some oversimplification. All three of these activities may be performed only with a clear understanding of what is to be said, shown, or withheld. Furthermore, the problems of how this saying, showing, and withholding is to be accomplished are complicated and frequently baffling.

Take the problem of what is to be said. In most cases, Government agencies

are engaged in very complex activities. They must address the public, because without public support their programs are doomed, no matter how essential to the "public welfare." Furthermore, most of the programs require wide-spread public participation, and, hence, a paramount necessity is a steady flow of information explaining the program in simple, unmistakable language.

Activities Complex

FOR instance, the United States Housing Authority program involves the lending of money to special groups, the granting of money to special groups, the exemption from taxes of certain properties, and the purchase and sale of bonds of various denominations. It involves the purchase of building materials for large-scale construction, thus encountering labor, industry, and commerce. It involves renting decent homes to families who can't afford them, thus encountering the activities of all the welfare agencies: public health, recreation, relief, etc. It involves the planning of whole neighborhoods, complete with playgrounds and shopping centers, cutting across the activities of local planning and zoning commissions, creating a demand for new educational and religious facilities, and disturbing, in some instances, well-established and smoothly functioning political organizations. Finally, it involves the complete rehabilitation of thousands of lives. Over night, people move from one environment into another. The problems of individual and family social orientation are infinitely complicated.

Public Must Understand Programs

SUCH a program, affecting the lives of thousands of families in such varied social and economic levels, must educate the public to its objectives, possibilities and limitations. One responsibility of that agency's information division is to address all of these people in terms they can understand. It must discuss subsidies, amortizations, cost-plus contracts, social maladjustments, etc., in everyday words which can be understood easily by the humblest citizen, since the humblest citizen is the one who will be affected most by the program.

A second responsibility of the information division is supplying facts and figures to all who are interested. If the Ladies' Aid Society of Plumb Center wants to know about public housing and juvenile delinquency, the information division should be able to supply accurate, well-presented material. In addition, it is the responsibility of the information division to report periodically to the Congress on the progress of the program.

That, briefly, is the Government information man's job, varying only slightly with the purposes and means of the agency he represents. And that brings us to the question: for whom is the job being done? The information man is always the anonymous member of the agency. He and his staff are, in a sense, faceless indi-

viduals whose task it is to create in the public mind an understanding of and appreciation for the activities of their agency. In doing this, their efforts should not be so strenuous as to direct attention to themselves rather than to the program of their agency. They should perform like successful lighting fixtures which illuminate specific objects without calling attention to themselves.

Enjoying Boss's Confidence

THE information man should be his Administrator's alter ego. He should enjoy the boss's complete confidence. No important decision should be made without his knowledge and advice. The information man should be the "number two man" in the agency. This, of course, can be possible only when the Administrator realizes the importance of the information program. All too often, in the Government, an administrator will surround himself with a staff of technical experts on the various phases of the program he administers, and then appoint a "mouthpiece" to pass on to the public the decisions, activities, and, upon occasion, the apologies of himself and staff. Such an information man is a kind of animated microphone. His value is strictly mechanical.

Gradually, from this much talk, the general outlines of an information man begin to emerge. It becomes apparent that the ability to inspire confidence in his superiors, his staff, and the public, are much more important than any particular experience; that a thorough knowledge of his agency's program plus the ability to translate that knowledge into everyday terms is more essential than connections; and that a mind capable of deliberate, practical analysis is much better equipment than facility with typewriter, shears and pastepot.

This is not to minimize the importance of practical training which is absolutely necessary, though how and where it is to be obtained is a matter for discussion later. It is rather to point out that the abilities of the man are more important than his employment record which should be regarded only as an index to his abilities; and, that while it is very easy to train the inexperienced man of ability, it is utterly impossible to train the man of no ability, regardless of his experience.

Qualifications Needed

WALTON ONSLOW, Assistant Director of Information for the United States Department of Interior, in an article entitled "Personnel Problems in Federal Information Service," appearing in Interior's *Personnel Bulletin* for August 1941, states the qualifications for successful information work in the government with admirable clarity albeit somewhat undisciplined enthusiasm:

Fundamentally, Federal information work is a profession. That fact should never be forgotten by a personnel officer when positions are to be filled. Information work requires a combination of special skills and abilities peculiar to this work alone. It is a broad combination. From a completely

idealistic viewpoint, a successful information man must have the respect for facts of the scientist and the engineer; he must have the prudence of a lawyer; the resourcefulness of the chemist; the ability of the trained writer; the news sense and other qualifications of the alert reporter; the judgment of an editor; the sense of public reaction of a Dr. Gallup; the persuasiveness of a Dale Carnegie; the quality of never swerving possessed by a heavy tank; the punch of a Joe Louis; and the showmanship of a front parlor version of Dexter Fellows.

Oddly enough, information work in the Government has, until very recently, not been considered a profession. Press relations, writing, and editing have been classified as CAF (clerical, administrative and fiscal); and the only way a practitioner of any one of these skills could attain professional status was to obtain a classification on the basis of technical training as a statistician, economist, architect, sociologist, or as a member of some other accepted profession. Many personnel departments still adhere to this obviously inadequate policy, despite the fact that the Civil Service Commission is struggling desperately to set up an adequate register for professional information specialists.

Newspaper Speed Absent

ONE thing, as Mr. Onslow pointed out, must never be forgotten: Government information work is entirely different from any other. Experience in newspaper, radio, and the moving picture industry is not absolutely essential to Government information work because such experience is miles removed from Government practice.

There is nothing so painful as the sight of a veteran newspaper man, accustomed to the noise and clatter of the city room, the tyranny of deadlines, and the ruthless speed of his profession, suddenly projected into the comparative calm and serenity of a Government information division. Only in times of national crisis, as at present and during World War No. I, does Government information attain anything like the tempo of the daily press. And then, only one or two offices (Robert Horton's at OPM and Lowell Mellett's at OGR) are affected.

Nose for News and Stomach for Whiskey

THE other agencies go on with their routine programs, doing a steady, practical job, with little or no fuss. Careful, painstaking research and constant checking of material is essential. Speed is desirable, but accuracy is more important. A cool, judicial sense of values is much more serviceable than "a nose for news and a stomach for whiskey." Occasionally, Government information men attempt to play up their jobs as spectacular, but the fact remains that they are not. Government agencies are not in competition with private agencies whether in handling information or building houses. Hence, the spectacular nature of highly competitive enterprise is completely lacking in Government activity.

The established Government information agencies, such as that of the Depart-

ment of Agriculture, are almost completely anonymous in character. They have competent writers, photographers, speakers. They make movies, build exhibits, disseminate important information. But they do it quietly and with no fanfare.

Although personnel directors are charged, both directly and by implication, with much of the responsibility for the confusion that exists in many government information departments, they are not wholly at fault. Administrators, Division chiefs, and others who have the final word in hiring personnel are much to blame.

Present Hiring Practice

GENERAL practice in hiring personnel calls for the division head to submit a request for someone to fill either a vacancy or a new position, involving specific duties and requiring certain qualifications. Personnel then consults its active applications, or, if it is a civil service position, the civil service register, and recommends candidates for personal interviews with the division chief.

These candidates have satisfied civil service as to their qualifications by having passed successfully an examination, or they have sold themselves to the personnel interviewer by their experience records and personalities. But only the division head, knowing intimately the work of the division, would be in a position actually to select. He only would know the intangible qualifications which cannot be included in any job description yet devised. How should he make his choice?

An interview might satisfy him as to the applicant's physical presentability; it might give him some clue as to the applicant's ability to express himself. But what about his ability to comprehend and translate for public or private consumption the program of the bureau?

Consider yourself the Administrator of a Government agency. You need a capable information man. You realize fully the importance of information work, and you admit frankly that you are looking for the "number two man" for your agency. You have, too, sufficient confidence in your own ability and sufficient knowledge of the program that you will not permit uncertainty or organizational bewilderment to prescribe a lawyer for your number two man—"just to be on the safe side."

In reality, you would be likely to pick an old and trusted acquaintance for the job—one whose capacities you know and whose fidelity to you and your program is above question. But suppose, for the sake of analogy, that such a person is not readily available, and you have decided to "go through channels."

Solve My Problem and I'll Hire You

YOUR personnel officers recommend to you a number of individuals for interviews. As they present themselves, you give each one of them a detailed description—not of the job as you see it—but of the problem. Then you say, "How would you solve it?" The applicant would then be sent around to the other division heads to

get the problem as they see it. After which, he would be told to spend a week or two working it out, and he would be invited to return at the end of that time with a detailed plan including recommendations for both the function and the administration of an information program for your agency.

If you followed some such procedure with, say six applicants, you would receive, at the end of two weeks, six plans of attack for your problem. You would doubtless get a lot of ideas which never would have occurred to you, and you certainly would have a yardstick for measuring your information man. All the various plans presented by the applicants would, of course, become your permanent property, and would constitute a very valuable idea cache.

You Are on Your Own Policy

HAVING selected your man, you have just begun. Your next job—theoretically very simple, but actually seldom achieved—is to give him his head to carry out his program. Your understanding with him is: "You're here as long as you get the right results. You can spend only so much money, and you know the rules of Government and the legislative requirements of the act under which you operate. Go ahead, you're on your own."

As far as I know, this method of selecting and handling information personnel has never been tried, and hence I am in no position to be dogmatic about it; but I will hazard the opinion that if it were applied throughout the Government, the whole aspect of Government information would be improved radically within a very short time.

We have already demonstrated wherein the work of Government information men is different, and we have said that schools and professions outside the Government don't prepare men adequately for the Government information job. The logical solution would seem to be an in-Government training school. The FBI trains its agents for the highly specialized work of tracking down and apprehending criminals. Mr. Hoover's primary interest is a certain type of man with sufficient background to enable him to comprehend the techniques taught in a special FBI school. No amount of police or detective work outside the Bureau would qualify an applicant for Special Agent work without this special training.

In-Training School Suggested

THE efficiency of the FBI indicates the success of that system. Why isn't the same thing done with Government information men? What would be saner than for candidates for Government information positions to be required to complete a special schooling which would educate them to the increasingly important task of handling Government information?

Civil Service has tried three times to set up an examination that would recruit

competent information personnel. The first two attempts failed miserably; the results of the third remain to be seen. Obviously it cannot be wholly successful unless most of the applicants indicate considerable Government experience. In the meantime, I recommend the "solve-my-problem-and-I'll-hire-you" technique and serious consideration by the Civil Service Commission of an in-Government training school for information men.

There is a Vast Gulf Between the Professional Man's Personal Work and Responsibility and Collective Bargaining by Labor Union Agents on Behalf of Multitudes of Unknown and Unidentified Workers. No Young Engineer Can Straddle the Gulf.

Unionism — An Issue *in* Engineering

BY CLEMENT J. FREUND

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ONE thing must be clear before proceeding with this more or less delicate discussion. This article is not inspired. There are no secret collaborators. The article does not in any way represent the policy or viewpoint of the Board of Directors of The Engineering Society of Detroit or the editor of The Foundation. It is nothing more or less than it pretends to be. Nobody except myself can be held responsible for it or any portion of it.

Unionism Perplexities

BUT I protest that I have given thought to the problem of unionism in engineering. I have had to because it so happens that it is my business to train young engineers, and in that business I have often enough become entangled in unionism perplexities.

Unionism is an issue in engineering. There is no question about it, whether you like it or not. Labor unions are penetrating into engineering occupations. The leading technical union is the Federation of Architects, Engineers, Chemists and Technicians (F.A.-E.C.T.), affiliated with the C. I. O. Officers of the Federation boast of more than 8000 members, although there is no evidence that they have recruited men of unquestioned professional standing. They have claimed significant progress in organizing the Minnesota Highway Department, Briggs Manufacturing Company of Detroit, Pittsburgh plant of the Carnegie-Illinois Steel Company, Rankin plant of the Bethlehem Steel Company, Ambridge plant of the American Bridge Company and the United States Navy yards. They have claimed strong

locals in California, Colorado, Wisconsin and New Jersey. In the Federation's 1940 convention they undertook a campaign to require a union label on "all drawings, erection diagrams, surveys, plans, shop and field details and laboratory reports." I could multiply figures, names, places and facts.

Labor Union Policy Of Engineers

I HAVE NO quarrel with a legitimate labor union in its proper sphere. If business men have the right to join trade associations and chambers of commerce, then employees have the right to join unions. But that is not now the question. The question now is, what shall be the labor union policy of the engineering profession?

The young engineer who is less than five years out of college seldom has more than a meager income. If he is married and has a growing family, his bills for milk, clothing, groceries and rent may amount to more than he earns. If, then, an alert and aggressive union organizer promises to get him more pay, and right away, the young man will certainly at least listen to what the organizer has to say.

But if he is conscientious he does not join immediately. He is puzzled. He is conscious of the traditions and ideals of the profession. Is it proper for him to join a union? He does not know. It seems to me that he is entitled to an answer and that the engineering profession ought to give him one.

I do not know, of course, what kind of answer the leaders of the profession might formulate, what kind of policy they may some day adopt. But if the young man should come to me and say, "The pressure is on me. Should I join an engineering union?", I think I should counter by asking, "Do you or do you not aspire to professional standing in engineering?" He will demand to know "Just what do you mean by professional standing?"

By professional standing I mean the standing of a comparatively small number of creators and leaders, intellectuals, researchers, organizers and administrators of industries and other engineering projects, who face lay officials and the public, fully conscious that they, and they alone, must answer for what they do. They are universally recognized as professionals. Dr. Wickenden calls them the "inner professional nucleus."

Thousands Without Standing

EVERYBODY KNOWS, of course, that there are thousands of men in the broad field of engineering who do not have professional standing, in spite of their skill and excellence. They are the draftsmen, testers, instrument men, checkers, calculators, experimenters, technicians, subordinate functionaries of one kind or another, who do not assume full responsibility but work under direction. Dr. Wickenden has referred to them as the "great engineering fraternity."

Everybody knows, likewise, that college graduates rarely pass from the outer

"fraternity" into the "inner professional nucleus" before they are four or five years out of college. Very many of them, unfortunately, never achieve professional standing at all.

There may be no sharp line between professionals and others, as in medicine or law, and many thinking engineers have no desire whatever to draw such a line, but it is never difficult to distinguish those engineers who clearly have professional standing from those who clearly do not have professional standing.

I tell the young man all this, or remind him of it, and then say, "If you aspire to full professional standing in engineering and all that it implies, dignity, respect of the community, respect of your fellows, you had better not join a union." I say that to him because it seems to me that a profession and a labor union are so nearly contradictory that he cannot possibly belong to both at the same time. And it requires no painstaking and comprehensive comparison of professions and unions to make this clear; a quick check of one or two points will be sufficient.

Professional Individualism

A COMMON earmark of all professions is the markedly individual character of the professional man and his work. When he performs a professional task he performs it himself. He may have assistants, hundreds of them, but the full responsibility rests upon him alone. The surgeon who performs an operation has the direct help of nurses and attendants, and the indirect help of more technicians, mechanics and various functionaries than he ever thinks about, but he alone must answer for the outcome, and the patient knows it, and so do the nurses, technicians and mechanics. Dr. Wickenden insists that a profession is "a type of activity marked by high individual responsibility." Professor R. M. MacIver contends that "The doctor, the lawyer, the architect, the minister of religion remain individual practitioners." According to Dr. Abraham Flexner, "Professions involve essentially intellectual operations with large individual responsibility." General Goethals was commissioned to build the Panama Canal because he had a personal individual reputation as an engineer.

On the other hand, solidarity is a common earmark of labor unions. The individual union member is lost in the mass. He expects to accomplish nothing for himself or by himself. The union agent runs his business for him, and the agent represents not him, particularly, but the whole union to which he belongs. The agent never permits employers or the public to forget that they are dealing with no individual workman, but with a powerful workingmen's organization. In his "Capital and Labor," Dr. John A. Ryan pointed out long ago that "To attain a position of equal bargaining power, laborers must act as a body." The famous Section 7a of the National Recovery Act ordained that "Employees shall have the right to bargain collectively through representatives of their own choosing." The

solidarity of labor unions is really too obvious. Any more discussion of it would be a waste of time.

Must Make His Choice

SURELY there is a vast gulf between the professional man's personal work and responsibility on the one hand, and on the other, collective bargaining by labor union agents on behalf of multitudes of unknown and unidentified workmen. No young engineer can be big enough to straddle the gulf; he must take his stand on one side or the other.

Hairsplitters will argue that there is no gulf at all, that the professional man is personally responsible only for the tasks which he performs, and that this responsibility need not prevent him from joining others of his kind in a labor union to exert pressure for the largest possible compensation. This is an artificial distinction which cannot be made in practice. Work and compensation for work are too closely bound together in the minds of most people. Can you expect even the most unselfish and public spirited engineer to accept a rate of pay which a union agent who never heard of him has determined for him and a thousand other engineers, in a single negotiation with client or employer? Hardly.

Again, the chief aims of professions and of unions are as far apart as the poles. The principal purpose of professions is to advance the public well-being, and especially, if need be, the public well-being in preference to the well-being of the individual member of the profession. The principal purpose of labor unions is to fight for adequate, or constantly more and more compensation for the members, depending upon conditions. There are secondary aims, to be sure—to increase membership, to secure contracts with employers, to exert political influence, to control the workingmen in the steel or shipping or automobile industry, to organize strikes—but these are merely auxiliary to the primary aim. One may read page after page of union proceedings and union publications without finding a single word to suggest that the officers or members ever give thought to the public advantage.

Aim Is Wage Increases

THE F. A. E. C. T. is a typical labor union in this respect. Its concern is for the well-being of its members. Prior to the 1940 convention of the Federation, President Lewis Alan Berne declared that the majority of technical employees are "beginning to raise questions relating to job tenure, salary, proper classification, discrimination against older men, their relations to production employees," and announced that "Our coming convention will seek to answer those questions and develop a program of action for their satisfactory solution."

News releases from the F. A. E. C. T. have stressed this position from the start. The first national effort of the Federation "defeated the unfair wage provisions of

the N. R. A." When the Society of Designing Engineers affiliated with the F. A. E. C. T., Mr. John L. Lewis wrote to them that "I feel that considerable advantage in bettering the economic position of the technical worker will accrue from this consolidation." The Federation boasts of wage increases in Los Angeles, New Jersey, the Queensborough Housing Project of New York City and in the W. P. A.

No Concern for Public Welfare

ALL this is as it should be, *for a labor union*; this sort of activity is the principal business of labor unions. But there has certainly been little or nothing in the history of the F. A. E. C. T. to convince anybody that the organization has, in the words of Mr. James H. Herron, "any serious concern for the public welfare, or at least not that type of concern for the public welfare in preference to personal and group welfare which should be characteristic of any vocation which pretends to be a profession."

It is unlikely that the officers of the F. A. E. C. T. will ever invite Dr. Vannevar Bush to speak before a convention of the Federation and tell the members, as he told the American Engineering Council in 1939, that "In every one of the professional groups, however, will be found the initial central theme intact—they minister to the people. Otherwise they no longer endure as professional groups"; and that "engineers go along heartily in developing a professional consciousness, a code of action, a philosophy which implements a desire to be a truly professional group, oriented primarily toward the advancement of the public health, safety, comfort and progress"; and that engineers should strive for "heights of true professional attainment . . . where the watchword is that old, old theme which has never lost its power, and which may yet save a sorry world, simple ministration to the people."

Union vs. Profession

CAN an engineer be a labor union member, attend meetings regularly as a good member should, listen repeatedly to discussions about wage rates, pay increases, strikes, strike votes, strike benefits, picketing organization, contract arrangements, membership campaigns and organization projects, all having to do with getting more and more for the members (however badly they may need it), and still cherish as the paramount objective of his work, his profession and his life, the well-being of the public, "simple ministration to the people?" A few exceptional men possibly can, the preponderant majority cannot. The majority must devote themselves exclusively either to the union, and union aims and purposes, or to the profession, and professional aims and purposes.

At this point my young man may interrupt to say, "All that may be true as far as professional engineering is concerned but I'm no professional engineer, and won't be for a long time. I'm not in responsible charge, I work under direction. Don't

you think I should join the union now for what it has to offer? I can use more pay, you know. Afterwards, when I become professional I can quit the union. Why shouldn't I now have what the union can get for me?"

Offers Advice

IF YOU desperately need a larger income, if you and your wife cannot possibly exist on the salary which you can independently obtain, and if you have abundant evidence that the union can actually obtain for you the greater income you must have, then join the union.

"But let me warn you that the price which you must pay for these immediate advantages is almost certain exclusion from professional status later. You cannot be a union man now and a professional man later; you must now choose one or the other. I appreciate that it may be a terribly difficult choice, but you must choose.

"Likewise join the union if you have no desire whatever to become professional, if you lack the confidence to strike out for yourself, if you feel most secure in a group of your fellows, if, perhaps, you are secretly afraid that you will always belong to the multitude.

"If, on the other hand, you and your family can somehow struggle along through the lean and early years, if you can stretch and stretch again to make ends meet, if you are eager to become professional, if you know you can excel and if you are making progress, then you should certainly stay out of the union."

But the young engineer may continue, "It's easy for you to talk that way but you don't know what I'm up against. I am making progress, my wife and I can make ends meet and I want very much to become a professional engineer. But our drafting room is practically a closed shop. I don't care about the union, but I can't stay in the place unless I sign up."

I can think of only one answer. That one answer is, "Quit your job and find another just as soon as you possibly can. Oh yes, I know that that is a harsh thing for me to say, and probably a hard thing for you to do, for many reasons, but I say it because I am most firmly convinced that professional progress and union membership simply cannot go hand in hand."

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Book Review

THE MEASUREMENT OF ABILITIES

By P. E. Vernon. London: University of London Press. 1940. pp. xii + 308

Reviewed by Forrest H. Kirkpatrick

This book is intended for psychologists, for teachers, and for examiners. It begins with useful chapters on the essentials of statistical procedure in psychology but its main object is to outline the principles of test construction and administration, and to consider questions which arise in the interpretation of test results. Dr. Vernon draws on the experience of many workers in the field of psychological testing.

It is somewhat disappointing to note that he does not deal in an entirely satisfactory way with the problem of defining the term "ability." . . . Much of the present-day confusion about the use of psychological tests could be dispelled by a resolute attack on it by competent people. Dr. Vernon's rather scattered references to the place of incentives in testing can hardly be regarded as adequate. It is apparent that he recognizes the importance of the matter, but it would be possible for the casual student of psychology to get the impression that Dr. Vernon subscribes to the common view that group testing is easy. His remark (on p. 187) that "group tests are easier (than ordinary tests) to procure, to apply and to score, and they demand much less training and experience on the part of the teacher" is, despite the cautionary comment which follows it, an unfortunate one. Group testing is often fraught with even greater dangers than individual testing.

The bibliography in the book seems good, but it should not have omitted mention of Bingham's "Aptitudes and Aptitude Testing." And it is surprising to find that, while Oakley's and Macrai's "Handbook of Vocational Guidance" is included in the list, Macrai's "Talents and Temperaments" is not. The two books seem to be closely associated when I think of vocational guidance in Great Britain.

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Civilian Air Defense

WHEN, the night after the Pearl Harbor attack, it was thought that there were Japanese planes over San Francisco, orders were given for a blackout. Owing to the rapidity of the development, there had been inadequate time for planning, so that the blackout was only partially successful.

We were, in fact out visiting, and apart from noticing that a few street lights were out, did not know of the air raid warning till we read about it in the paper next day.

But it did cause quite some panic, particularly in houses where there were women and children only.

The next air raid warning was four days later, and by that time people had been given some instructions through the local press. In many homes, arrangements had been made to cover up the windows of one room, and for games to be played in it during the blackout.

The panic was consequently much reduced. But had there actually been bombing it would have been bad, not because the people would not have been brave, under the circumstances, but because they would not have known what to do.

To show the extent which we may have to go in organizing civilian defense, and training for it, we publish below two articles, one written by a Moscow housewife, describing the organization of air defense instruction, when it was voluntary, and a second, by an army officer, after the training had been made compulsory.

We also show a plan of organization of employees worked out for air raid occasions by the National Restaurant Association, based on a plan by Schrafft's Stores. Every business establishment, store and plant, hospital and school, particularly in coastal areas should forthwith develop such a suitable protective plan until more elaborate plans of training are worked out by the War Department.

The Training of the American People to Meet the Threat of Air Raids will be Facilitated by the Experience of Populations which Have Already Undergone Aerial Attack. This Article Should be of Particular Interest at This Time.

I. Voluntary Defense Training

BY A MOSCOW HOUSEWIFE

AIR raid defense preparations were begun when a general meeting of tenants in the apartment house was arranged for by the Chairman of the House Committee upon the request of a representative from the local branch of the voluntary civilian defense organization. This meeting, held for the purpose of organizing a civilian defense unit in the house, was attended mainly by the housewives, domestic workers, and others not employed in factories, schools or other institutions already providing defense training.

First Organization Meeting

AT THE meeting, which adopted a resolution to organize a unit, some of the tenants volunteered to go around and explain to their neighbors the advantages of becoming members of the civilian defense organization. The unit elected a chairman and a treasurer. The function of the latter is to collect membership dues and turn the money over to the district office. The next step was to organize among the members an active group under whose auspices classes were set up to provide training in civilian defense. All tenants not already receiving instruction at school or work were urged to participate in these classes. The subjects covered were First Aid and various other aspects of air-raid defense, including the study of the different kinds of bombs and gases, the organization of shelters, the proper conduct during alarm and raid, the use of gas-masks, the problems of black-out, and the organization of civil defense units. The First Aid class was conducted by a

doctor sent from the local Red Cross office and the others by an instructor sent from the district office. In all the classes theory was supplemented by practical work and demonstration.

Equipment Supplied

AS THEIR studies progressed, the participants were organized into defense units according to their physical abilities and special capacities. All units were supplied with the necessary equipment; for the First Aid Unit: a stretcher, a flashlight, First Aid Kits, and extra gas-masks for the rescued; for the Fire Unit: pails, shovels, asbestos gloves, and sand; for the Signal Unit, an alarm bell and telephone apparatus (usually located in the office of the house committee); for each individual, a gas-mask.

The head of the house committee automatically became the head of the civil defense work in his house. The Chairman of the Unit, elected by the members, had authority only in connection with the work performed by his unit. The head of the house committee was responsible for obtaining all the necessary equipment from the District Soviet after his requisition had received the approval of the local office.

Instructing the Tenants

AFTER the course of study had been completed and the students had been formed into regular units, they began their work with the rest of the tenants, those who for some reason had not participated in the classes. A complete list of all apartments and their occupants was made, with notations of age, sex, profession, and state of health. A separate list of children was compiled, indicating in addition to age, health, etc., which nursery or school they were attending.

A detailed plan of the house was drawn up, with special attention paid to front and back stairways and to cellars. In the course of this work, the organization kept in touch with its district office, reporting progress and getting instructions for further work. After preliminary details were taken care of, every member of the unit was assigned to two or three apartments for individual instruction of tenants. Each tenant who had not already received a gas-mask at place of work or study was supplied with one, along with a book of regulations.

The air raid wardens explained to each tenant how important it was for each and every civilian to be ready for the emergency, stressing that preparedness means less danger, that it ensures complete order and obviates panic factors which usually cause a great many unnecessary injuries and even loss of life. Explanation of this kind led to a cooperative attitude on the part of the tenant, and made easier the practical instruction which followed. By appointment, at times convenient for both, the wardens visited the tenants and showed them how to use the gas-mask,

how to prepare the apartment for a black-out, explained to them the different signals of alarm and all-clear, told them which stairway to take in case of an air-raid alarm and which was their nearest shelter. To those with children they explained that mothers with children (as well as old people) might have to be escorted to a different shelter than the rest of the family and that there must not be any attempt on the part of the others to join them, lest it create confusion. They were told to obey the wardens who were to be posted at all important points during the alarm to direct people to their shelters.

Tests

WHEN the wardens felt that sufficient explanatory work had been done, a meeting of all the wardens was called and a date was set for a test of the entire house. The first test was usually just to see if people recognized different signals of alarm sounded by the signal unit of the house; the effectiveness of the black-out was often tested at the same time. The wardens checked on all the windows and when the signal "gas" was given they ascertained whether all the tenants had put on their gas-masks. Such tests were carried out several times until everything went smoothly.

Then there were special tests for all the wardens to see if they knew exactly where their places were and what their duties were during the alarm. Later came the most important test of all, in which wardens assumed their posts and the entire house took to shelter. Special wardens were posted at the gates and no strangers were allowed in. People who came to see residents during the alarm had to wait until the test was over. During such tests representatives of the district office were always present.

Members of the First Aid Unit escorted sick tenants to the shelters and cared for them there. During this training period the tenants got to know their wardens and to rely on their efficiency and authority. They began to acquire a sense of security and safety even in the face of emergency because they knew exactly what they were supposed to do and how to do it. This elimination of uncertainty has been a strong morale factor.

Rubbish and Obstacles Cleared

TESTS were not only held separately in each apartment house. Whole streets and sections of the city cooperated in joint tests, operating on signals given simultaneously by the Signal Unit of each house.

Along with work of this sort, many other relevant activities were undertaken to decrease the hazards of air raid defense. Thus, the Fire Fighting Unit removed all inflammable objects from the yards, halls, attics and stairways. They saw to it at the same time that all these places were free of things that might serve as ob-

stacles when people had to go to the shelters. The First Aid Unit made a list of all people who would need special attention, medical care, or even removal to a special institution in case of emergency.

Shelters

THE selection of a shelter and providing it with proper equipment was regarded as one of the most important problems of civilian defense. An engineer from the Housing Construction Bureau of the City Soviet was asked to examine the house and its cellar. Houses which were found sufficiently solid in construction and with cellars deep enough to serve as shelters, were equipped accordingly by the wardens. First the cellar was cleared of all unnecessary objects and thoroughly cleaned. Then the wardens checked the adequacy of plumbing, ventilation, and light. With the advice of the engineering expert, alterations were made. Bunks were built. The First Aid Unit equipped the shelter with all necessary medical supplies. A check was also made to see if access to the shelter was easy and convenient for the tenants, and improvements in this connection were undertaken wherever necessary. All work relating to the shelter was done under the strict supervision of a district instructor.

If the cellar was found unsuitable and the house had no other place that could be converted into a shelter, several wardens were sent out to investigate the situation in the neighboring houses with a view to finding any with shelters capable of accommodating additional people. The detailed reports of these investigators were checked by both the Chairman of the Unit and the head of the house committee, and plans were drawn up indicating precisely how the tenants were to be distributed among the various shelters in the immediate neighborhood.

Black-Out

THE Signal Unit in the house had taught the tenants the different signals for air-raid alarm, black-out, gas, and all-clear. An "air-raid alarm," when it took place at night always meant a "black-out" as well. A "black-out alarm," however, did not necessarily mean an air-raid warning. The wardens of the house set a date for a "black-out" test after each apartment had been equipped with the necessary articles to make the "black-out" completely effective and at the same time keep to a minimum the disruption of the normal life of the home.

The tenants purchased blue bulbs, flashlights, etc.; some fashioned special black or blue drapes; others made frames of plywood or coarse material to fit window frames exactly and then pasted black paper across them; still others used blankets, old cloth, and various materials already on hand. When the "black-out" signal was sounded in the test, the tenants took various steps depending on their household needs. If they had to use their lights, they drew the drapes or inserted the

frames so that no light showed through. If the darkness was no inconvenience, they turned the lights off entirely in their apartments.

The House Committee saw to it that the lights were turned off in yards and hallways, usually leaving on a few blue bulbs at specified points. These bulbs, of 15 to 25 watts, were outfitted with black reflector-shades so that the light was projected downwards.

Wardens Posted

THE wardens were posted all around the house and sometimes on neighboring roofs to check on the effectiveness of the "black-out" and the amount of time it required. Any inadequacies were reported after each such test, and means were found to correct the situation. Such tests continued until the results were completely satisfactory. After that they were carried out at regular intervals to keep the tenants on the alert and make sure that the proper equipment was kept in a usable state and readily available.

Not only was the procedure in the various aspects of civilian defense constantly tested in the apartment house, but in order to keep the theoretical instruction fresh in mind and to keep up with the latest developments, the tenants were invited to lectures given in the house from time to time by an instructor from the district office. The wardens who were members kept up their training at the district office of the civilian defense organization.

Simultaneously with the Training of Adults, the Organization of Study Should Immediately be Undertaken for Children Between the Ages of 8 and 16. They Should be Taught Means of Individual Defense, Particularly in the Use of Shelters, Gas-masks, etc.

II. Compulsory Defense Training

BY MAJOR-GENERAL OF AVIATION

P. P. KOBLELEV

Russia

THE improvement of local air-raid defense has been proposed by Stalin as one of the tasks to be performed in strengthening the rear of the Red Army. The fulfillment of this duty will be rendered considerably easier by the decree of the Council of People Commissars making compulsory the training of the entire population in air-raid defense work.

Training of the population at large will render many times more effective the air-raid defense of our industrial enterprises, offices, collective farms and homes. It will convert them into impregnable strongholds of defense, will raise the degree of organization and discipline of the population, will make it possible to reduce the effects of aerial bombardment, and will permit a quicker liquidation of the consequence of enemy raids. The government of the USSR has given the Civilian Defense organization a heavy, but honorable and responsible assignment.

Training for all—16 to 60

THE organizations of the defense society must, without any loss of time, reorganize themselves and train the entire adult population from 16 to 60 years of age for anti-air and anti-chemical defense. Every Soviet citizen must, in the briefest possible period of time, learn how to extinguish incendiary bombs and any fires resulting from them, must study gas defense, and know how to render first aid to the suffering.

In addition, everyone must know how to build the simplest forms of air raid shelters, and must know the rules of conduct to be followed during air raid alarms.

In order that the training of the population be conducted most efficiently, it is

necessary in the first place that every local organization immediately begin regular study of the skills required for the badge "Ready for Air and Chemical Defense."

In every enterprise and every institution, circles must be set up at once to study air and chemical defense. Students must attend defense circles organized in the schools. [The decree provides that children from eight to sixteen years of age are to be taught "means of personal safety" during air attacks.] The rest of the population is to receive instruction at place of residence.

Strictly Practical

ALL air and gas defense training must be of a strictly practical character. The first stage of training will consist of six lessons lasting two to three hours each. The first of these will be devoted to the rules of conduct when air raid warnings are sounded and the rules for covering up and taking shelter from bombs and poison gases.

The second session is to be devoted to defense against explosive bombs. This is to include a visit to, and a close study of, one of the models of the simplest forms of shelter (a trench-shelter). It is to be followed by the actual construction, upon the basis of this experience, of a shelter of the same type.

The third session is to be devoted to the study of fire protection of buildings.

Fire Protection

THE defense trainees should know not only the measures necessary to prevent the spread of fires among enterprises, institutions and dwellings, but also how to keep buildings in constant readiness to meet such emergencies. In the most dangerous places it is necessary to keep a supply of water in barrels and pails as well as a supply of sand in boxes and sacks. At the same time it is necessary to have on hand extinguishers and fire fighting equipment, to keep the yards, the halls and attics free of inflammable materials, and to test the condition of all water outlets. Reserves of water should be on hand in apartments too, bathtubs, pails, etc., to be used for this purpose.

The fourth session is to be devoted to practical study of methods of extinguishing incendiary bombs. It is necessary to learn how to recognize this type of bomb, and how to extinguish it with water and sand.

The fifth session is to be devoted to the use of gas-masks. It is necessary that the entire population should know the correct way in which to put a gas-mask on and to take it off, how to store it, how to take measures of defense against skin infection from poisonous substances, and the procedure for evacuating contaminated places.

The final session is devoted to study of methods of administering first aid to the injured. Everyone should know the use of bandages and other materials contained

in the special chemical kit, should know how to stop the flow of blood, and how to transport an injured person.

The training should proceed in such a way as to teach each individual not only independent activity under conditions of air attack, but cooperative, collective effort in rescue work, debris removal, etc., especially in case of fire.

After completing the minimum program, the air and chemical defense circles are to continue their study to the point where the whole twenty-eight hour program of instruction prerequisite to the "Ready for Air and Chemical Defense" badge has been completed, and where all those studying can pass tests of theoretical knowledge and of practical application.

Simultaneously with the training of adults, the organization of study should be immediately undertaken for children between the ages of 8 and 16. They should be taught means of individual defense at time of air attack, particularly the use of shelters, gas-masks, sanitary and chemical first aid kits, etc.

Hundreds of Thousands of Instructors

TO PREPARE the civilian population for defense, hundreds of thousands of instructors will be needed. First of all we must obtain the cooperation of all the members who have completed the course for instructors. They must be called together immediately and after their knowledge has been tested, inducted into the work of training the population.

In addition, it is important that instruction in certain parts of the course be given by doctors, members of the fire department, engineers, teachers and technicians.

Self-defense groups are being formed in enterprises, institutions and living quarters. The instruction of the groups in living quarters is the responsibility of civilian defense. Such groups must multiply immediately until they are present in all dwellings, and participation in their work is obligatory for citizens of both sexes; women 18 to 50 and men 16 to 60 (exclusive of those excused because they are ill, invalids, etc.) The organizations must form and strengthen these groups and proceed without delay to give three to four hours of daily instruction. The program is to involve forty hours of study, and fifteen days therefore will be sufficient for its completion.

Air Raid Instructions

Issued by the National Restaurant Association
Based on Plan of The Schrafft's Stores

These instructions become effective ONLY in case BOMBS ARE BEING DROPPED and Manager has personally confirmed same.

Following is an *instruction plan*, designed to organize the stores so that they may quickly and effectively operate in case of an air raid.

On this chart, you will fill in the names of the employees in your store whose sole duty it will be to handle the task assigned to them, according to these instructions.

The manager or assistant manager should be in control on all floors and departments. Under him, one person should be assigned to take general control of employees, and another one to control the handling of guests on each floor.

For Employees Assigned to Store Personnel

Gas—Shut off all gas ranges, heaters, furnaces, pilot lights, etc. Pilots must be lighted first before gas is turned on again.

Lights—You will receive emergency glow lamps and candles. One glow lamp and candle are to be kept at each cashier's desk at all times, and lighted immediately in case of alarm. The balance are to be kept in a readily accessible place in each room, according to instructions from this office.

At the first alarm they are to be lighted by persons assigned to this duty on Plan 2, and placed according to instructions.

Then, and not until then, put out *all* other lights.

Telephones—An employee should be assigned to stand by, wherever there are telephones.

First Aid—First aid warden will stand by with First Aid kit.

Fire Extinguisher and Sand—Wardens go to their posts. In case of fire, get word to Manager and try to retard fire from spreading. Under no circumstances will you try to extinguish an incendiary bomb. They are apt to explode if you do.

Inside Doors—One employee should be stationed at each door, to insure order. Designate exits for each room or department.

Refrigeration—Steam—Oil Burners—Pull main electric oil burner control switch. Pull switches of all ventilating fans. Pull main ammonia compressor electric switch, and all other refrigeration machine switches. A very reliable person should be assigned to this post if no engineer is available.

Signs—Window Lights—Doors to Street—Turn out all window lights, signs and lights nearest front of store, and close all curtains possible.

2 Wardens at each street door are to keep order.

Searchers—A man should be detailed to men's lockers and toilets to see that they are cleared. A woman should be detailed to the women's lockers and toilets to see that they are cleared.

All employees must leave basement in an orderly manner as quickly as possible, except those on air raid duties.

Cashiers and clerks operating cash registers will immediately lock their cash drawers, leaving money in drawers, and go to Refuge Floor.

For Employees Assigned to Guests' Protection

Hostess or Usher should be instructed on each floor as to the handling of guests.

Exit Doors—Two employees should be assigned to each door, to insure order.

Lights—You will receive emergency glow lamps and candles. One glow lamp and one candle are to be kept at each cashier's desk at all times, and lighted immediately in case of alarm. The balance are to be kept in a readily accessible place in each room, according to instructions from this office.

At the first alarm they are to be lighted by persons assigned to this duty on Plan 2, and placed according to instructions.

Then, and not until then, put out *all* other lights.

First Aid—One or more persons should be assigned to first aid, and to cooperate with employee assigned to employee personnel.

Fire Extinguisher and Sand—One person should be assigned for this purpose, and to cooperate with employees on similar posts under employee personnel.

Under no circumstances will you try to extinguish an incendiary bomb. They are apt to explode if you do.

Searchers—A man should be detailed to men's public wash rooms, to see that they are cleared. A woman should be detailed to women's public wash rooms, to see that they are cleared.

All guests must leave basement dining room in an orderly manner, as quickly as possible.

Elevators—All elevators will immediately be shut down and any passengers must leave cabs. When passengers are out, operators will leave cabs and close doors.

PERSONNEL JOURNAL

General Instructions

Experience has proven that the safest place in a building is in a room with the smallest number of windows, located in the center of the building, on the first, second or third floors.

Both employees and guests must stay away from windows, outside walls, and avoid elevators. It is safer to lie down.

Important—Ushers must see that everyone stays as far as possible away from windows, since more than 50% of injuries sustained during an air raid are caused by flying glass and splinters.

Whichever floor is chosen as safest, should have one window left open, and one person should be assigned to see that this window is *kept open*.

The two most important positions to fill are those immediately answerable to the Manager—that is, general control of personnel, and control of guests. The employees assigned to these two posts should be carefully selected for their calmness, resourcefulness, and ability to handle people.

Employees assigned to Guests' Protection should organize each floor on which guests are served, and appoint either a hostess or usher to immediately advise the guests where to go, and demand that they proceed in an orderly way.

It was Proposed to Ascertain as Far as Possible the General Pattern of Present Day Management then to Make the Fruits of Such Research in the Form of Plans and Principles available to Business Executives as a Guide in Planning Future Expansion.

Top-Management Organization and Control

Extracts and Reviews of Report of Research Study
Made

BY PAUL E. HOLDEN, LOUNSBURY S. FISH AND
HUBERT L. SMITH

Stanford University, Calif.

THIS published report of the study of 31 corporations first deals with over all problem of top-management and organization. It then goes on to deal with needs and trends in staff organization, leading off with Personnel and Industrial Relations Departments, We quote briefly from what it has to say on this subject.

While the personnel and industrial relations function has central staff representation in most of the companies studied, in only a very few cases did this activity appear to be operating under a plan of organization conducive to the full accomplishment of its logical purposes.

The Authority and Coordination Problem

MOST of the personnel agencies appear to be primarily concerned with labor relations and the problems involved in handling rank-and-file personnel. In this field for the most part, they seem to be quite effective. As a rule, however, they apparently play little part in the constructive development of staff, supervisory, and executive personnel. This is one of the major problems on which management must necessarily look to active staff assistance if the important objectives are to be fully realized.

Then, too, instead of having a single, strong staff agency taking full functional responsibility for all appropriate aspects of personnel administration and industrial relations throughout the company, many concerns have several agencies handling

different parts of this general field with little or no effective co-ordination between them. Sometimes the split is made on a functional basis, as when there are separate agencies to handle personnel relations, labor relations, and so on; in other cases, individual departments, such as manufacturing and sales, have independent personnel agencies. Under this plan it is difficult or impossible to achieve the uniformity of thought, purpose, and practice which is so important in this field.

Limits of Advisory Basis

ANOTHER handicap to the full value and effectiveness of such agencies is the fact that, in order not to conflict with the natural responsibilities of the line organization in regard to personnel matters, the personnel or industrial relations department is set up on an advisory rather than a control basis. Under this arrangement it is not in a position to assume the active, functional direction and supervision of the entire program, "getting done the things that need to be done" in this field. On the contrary, it must sit back and wait to be asked for advice, often aware of unsatisfactory conditions which it is powerless to correct except by the dubious expedient of complaining to the chief executive. Other companies have demonstrated the practicability of organizing this important function on a control basis, as defined above, and are apparently able to secure the advantages of this type of setup without relieving or conflicting with the natural responsibilities of the operating organization.

In this same connection, central personnel agencies set up on an advisory basis generally lack the power of selection, training, and, sometimes, even freedom of contact and correspondence with the various divisional or departmental staff agencies handling the same function. Without such authority the director of personnel is often obliged to work through departmental representatives whose qualifications, background, and viewpoint may be wholly inadequate. This seriously impairs efforts to achieve the desired over-all objectives.

Place of Responsibility

ANOTHER common weakness in organizing a personnel department is to make it responsible to a divisional executive and then expect it to function effectively for the company as a whole. Because the major portion of rank-and-file personnel is found in the factories, some companies place the personnel and industrial relations department under manufacturing, possibly overlooking the major need for similar staff supervision with regard to sales, office, and supervisory personnel, or at least making it difficult for the personnel agency to function effectively over this broader field.

Again, in two or three companies the personnel department reports to the legal department, presumably to take advantage of specialized knowledge of labor laws

and bargaining procedure. Regardless of personal qualifications, this organizational relationship might easily make it difficult to secure the confidence of the company's workmen, because emphasis is placed upon legal rights rather than upon equitable human relationships. It may be significant in this connection that, in the two participating companies which have experienced major labor difficulties in recent years, the labor relations department works under the legal department.

Observation among the companies surveyed indicates that the following features are usually desirable in the organization of the personnel staff.

There should be a single, high-caliber, central staff agency, under a director of personnel responsible to the president or to general management for functional direction, co-ordination, and control over all personnel and industrial relations matters.

In the case of a large company, such an agency might appropriately have subdivisions as follows:

- (a) Research and Analytical Section
- (b) Employee Benefits
- (c) Training and Development
- (d) Employment
- (e) Labor Relations
- (f) Medical
- (g) Safety

The Control Function

IT IS interesting to find in this discussion the distinction between an advisory staff function to which most personnel and industrial relations work is relegated, and a control function, which it is necessary for the personnel department to perform if it is to "get done the things that need to be done."

A rather new idea, also is that of setting up, in larger companies a separate Organization (staff) Department. It shows that where such a separate department is not set up the functions are often assigned to the industrial relations or industrial engineering departments. It is essential therefore, it seems, that industrial relations and personnel men should be aware of the importance of this aspect of their work.

Organization Department

INCREASING realization of the importance of organization analysis, planning, and clarification is evidenced by the fact that at least four of the participating companies have, within recent years, set up well-qualified central staff agencies for this purpose. In each case the agency assists the top executives in developing and maintaining plans of organization which will best facilitate management and control of the enterprise.

These agencies are usually headed up by a manager or director responsible to the

president and supported by from one to a dozen specialists having wide experience and familiarity with the different major functions or fields of operation, such as production, marketing, technical, and office. Owing, no doubt, to their comparatively recent origin, none of the agencies observed has as yet fully achieved its logical ultimate province and place in the organization. Their functions are found to vary considerably, and in no one case do they embrace the full field of usefulness for such a department. Among them, however, practically all the activities appropriate to such an agency are represented.

The primary responsibility of an organization department is, logically, to determine needs, formulate plans, and secure necessary acceptance, co-operation, and support, to the end: first, that the company may have the best possible plan of organization to meet its requirements; second, that the appropriate functions, objectives, relationships, and limits of authority may be properly clarified and defined for each level of management, each department, each committee, and each key job; and, third, that the size of the company's organization (manpower) may be kept at a minimum necessary to handle the essential work. This normally involves such specific activities as the following:

Work of Department

1. Developing an ultimate or ideal plan of organization to work toward as appropriate opportunities are presented.
2. Developing and maintaining an organization manual clarifying and defining the approved plan of organization by means of organization charts, job specifications, and similar devices.
3. Initiating or reviewing proposed changes in the plan of organization, making sure that they are desirable and as far as practicable consistent with the ultimate plan, and recommending appropriate action.
4. Making a periodic review of organization practice to see that it conforms to the plan, or that the plan is amended as necessary to meet changed requirements.
5. Making necessary organization surveys to determine essential work, manpower, and organization requirements.
6. Developing and administering a plan of control over payroll and manpower, such as a payroll budget.

Such an agency should also have an important voice in designing the general plan of control over such activities as capital expenditures, operating expenditures, wages and salaries, appointments to key positions, and changes in the line of products. These control schemes are an inseparable part of organization planning, involving the allocation of functions, assignment of responsibilities, and delegation of authority.

Relation to Wage and Salary Control

THE process of analyzing and clarifying job functions and setting up job specifications affords the best possible basis for determining relative job values. Therefore, as confirmed by the practice of two of the companies, the organization department is in a logical position to serve as the analytical or fact-finding agency in connection with the company's wage- and salary-control program, involving such phases as:

1. Appraising relative job values.
2. Determining prevailing wage and salary levels on the outside.
3. Recommending appropriate wage rates and salary ranges for all jobs as necessary to maintain a rational and equitable wage and salary structure.
4. Reviewing all proposed wage changes from the standpoint of justification, effect on other related rates, and similar factors.
5. Analyzing all proposed salary changes from the standpoint of conformance with the approved salary structure, and other considerations.

Two companies have found it advantageous to look to their organization agencies to exercise functional control over not only payroll costs, but over all elements of cost.

In companies which lack an organization department, such functions are often assigned to the industrial relations or industrial engineering departments.

In order that it may be in a position to discharge all of these responsibilities effectively and assure the proper co-ordination of similar effort throughout the company, the organization agency should be set up on a control basis, with closely related departmental affiliates.

The third part of the study deals with "Control Practices." After dealing with control over policies, rate of operation and organization, the next three chapters deal with Control over Quality of Key Personnel, Control over Wages and Control over Salaries.

These sections outline the functions of a Personnel department acting as a control rather than an advisory agency.

Control over Key Personnel

JUST as it is important to design the plan of organization to facilitate and meet the needs of management, so it is essential to develop personnel who can come as close as practicable to meeting the requirements of the positions which constitute that organization, and so to assure its full effectiveness.

It is recognized that the personal element necessarily plays a large part in selecting men for key positions, and the ideal specifications as to individual qualifications, background, and experience are more often only approached than completely met. However, experience clearly shows that a great deal can be done to-

ward developing men who can adequately meet essential job requirements through having a clear idea of what those requirements are and then using this as a guide in the various phases of personnel administration. While most of the participating companies seem to recognize the importance of this problem, only a few of them appear to have programs that are fully co-ordinated and effective. Others rely largely upon the initiative and judgment of individual executives, often with far from impressive results.

Features of Effective Plans

THE most effective plans observed in this study have many or all of the following features in common:

- Careful selection of candidates for training.
- Comprehensive training to meet job requirements.
- Gradual, systematic development through selected positions of responsibility.
- Thorough, periodic rating of individual performance and capabilities in terms of job requirements.
- Effective control over appointment to responsible positions.
- Disposition of those proving inadequate in key positions.
- Definite assignment of responsibility for developing, guiding, and co-ordinating the entire program.

Practices among the participating companies in regard to each of these important aspects of control over quality of key personnel are outlined in paragraphs.

These paragraphs deal with best practices in: Selection, Training, Student training, Supervisory training, Executive training, Rating, Appraising performance, Disposition of inadequate personnel.

Of Executive training the study reports:

Executive Training

SOME companies appear to trust to luck or sporadic individual efforts to produce adequately qualified candidates for executive positions when they are needed. Other companies, impressed with the value of having only the highest-caliber personnel in every major position, have a well co-ordinated training and development program to this end. This assures an adequate supply of candidates who have the requisite personal qualifications, training, and back-ground to make them fully effective in the positions for which they are in line.

Executive training has two important aspects. One is to train executives to function most effectively in their present jobs. The other is to provide, through successive appointment to selected positions in different departments, the wider background and experience which may eventually qualify them for higher executive positions. Both these activities fall within the natural province of management,

to direct the program and, through contact with their subordinates, to take an active part in their development. In both cases, training-on-the-job is of primary importance. Here again, clarification of job requirements is a first essential.

Many companies attempt to earmark their potential executive talent or promotable material. Executives are expected to devote special attention to the progressive development of such men within their organizations and their progress is the subject of periodic discussion with major executives.

Under-Study Training

SOME of the co-operating companies insist that each executive train an adequate successor as a condition precedent to his own advancement. To this end, one company goes to the length of insisting upon double desks for all executives, with a candidate for ultimate responsibility sitting opposite, usually functioning in a "foot-loose," "assistant-to" capacity. Even the president follows this practice, with a high-caliber assistant sharing his own double desk. While admitting that the practice of maintaining these extra training positions is somewhat expensive, the company feels that the benefits far outweigh the costs. Advantage is taken of opportunities to send these trainees out to the field to investigate problems and to relieve field executives during their vacations, thus supplementing their inside training.

Two of the participating companies do a most impressive job of training executives through use of the so-called consultative plan of management. Under this plan of sharing management problems and responsibilities with subordinates, functions and objectives as well as methods and measures of accomplishment are clarified through joint discussion and agreement. This gives each man a clear conception of the requirements of his job and the best thought of his principals and associates as to how to discharge them.

Another company achieves something of the same effect through close contact between subordinate executives and their principals in connection with its five-year planning and development program.

In still another company, the top executives meet monthly with from fifty to two hundred of the key operating and staff heads to discuss problems of major concern, review proposed changes in policy, and develop and co-ordinate the thinking of their key men.

Development through Responsible Positions

AS to the second aspect of executive training—progression through selected jobs to widen experience and familiarity—the following practices are most interesting:

A number of the companies follow the progress of their promotable material closely, and when, through periodic appraisal, they feel that a promising man has

realized the full measure of training and experience from his present assignment, they try to find a suitable promotion or arrange a lateral exchange ("swap") of jobs. In either event the objective is to widen the individual's experience and provide an opportunity for his continued growth. In making appointments, such companies frequently try to make as many logical shifts of key prospects as practicable in order to multiply the number of opportunities for further development.

Many concerns recognize the special training value of work in certain jobs and departments which afford familiarity with a wide circle of activities, such as organization work, industrial engineering, cost control, personnel activities, and the various "assistant-to" jobs. Full advantage is taken of the opportunity to rotate promising men through these departments in connection with their long-term training. In the same way, service in a subsidiary company may afford familiarity on a smaller, simpler scale, with most of the problems of the parent company.

In making any appointment, from the lowest to the highest, one large company considers not so much who can most quickly fill a particular job (usually the "next-in-line") but who will profit the most through the experience and training which the opportunity affords, and so be of greatest ultimate value to the company. To this end, it considers all individuals throughout the department at the level next below the vacancy and selects the man who, in its judgment, would get most out of the assignment.

Logical Order of Promotion

IN THE case of the more important positions, this consideration extends to qualified men throughout the company. It is assumed that within a few months, an able man, with the help of his associates, can learn to handle the work. No difficulty is experienced through disappointment of the "next-in-line" or "heir apparent," as all key men know the system and are hopeful of appointment not only to the one position directly ahead but to any of the many positions on the next higher level. The result of this practice is that executives have a remarkably comprehensive knowledge of the operations and of the key personnel throughout the company.

In order to crystallize and effectuate the program of executive development through service in a logical succession of well-selected assignments, it is desirable to consider and record for each key position in the company the training jobs or fields in which the candidate should preferably have served, indicating the logical order of promotion where practicable. For instance, if the key position carries major responsibility for production, costs, and labor relations, it would be considered desirable for the candidate to have had some experience in the production, industrial engineering, and industrial relations departments. While such specification would of course not be on a hard and fast basis, being subject to the availability of openings and other considerations, it would tend to systematize the development program and so make it more effective.

The chapter dealing with Control over Wages follows along the general lines with which personnel men are familiar.

Under Control over salaries there is an interesting discussion of the development of a Master Salary Guide, and methods of administration, control procedure and analytical agency required to aid.

Control over Salaries

AMONG many of the participating companies one of the most obvious and generally recognized needs is a better plan of control over salaries—one that is rational and equitable, and that relieves top management of the necessity of personally reviewing and approving each change.

Lacking such a plan and conscious of the abuses to which salary administration may be subjected, many chief executives or executive committees were found to be personally approving all salary changes for the entire organization. Not only does this practice appear to impose a considerable burden upon the top executives, but frequently they are hardly in a position to judge the merits of each case, lacking adequate information as to the worth of the jobs or the capabilities of the individuals concerned. About all that can be said for this plan is that, having to go to such a high level for approval, department heads are likely to be conservative in their recommendations.

Several of the participating companies, however, have developed effective control plans which permit delegation of authority for making salary changes and yet assure that adjustments are equitable and in line with good business judgment. These plans are predicated upon a master salary guide or schedule establishing relative values and appropriate ranges for salaried jobs throughout the company. Having approved such a schedule and having established the policies to guide its use, top management may confidently pass the major burden of salary administration down to departmental executives.

Analytical Agency Required

IN MANY companies functional responsibility for development and maintenance of a sound and equitable salary structure is assigned to a central staff agency, such as an organization and cost control, industrial engineering, or personnel department. These agencies usually have a group of well-qualified specialists who devote full time to salary problems and related activities, handling such analytical functions as the following:

1. Developing a suitable salary-control plan.
2. Guiding, co-ordinating, and assisting in the preparation of job analyses.
3. Determining relative job values in collaboration with similar departmental specialists and executives.

4. Making outside salary comparisons.
5. Reviewing and making recommendations in regard to proposed changes in job classification.
6. Checking individual salary recommendations to make sure they conform to the established schedule and policies.
7. Making necessary analyses to determine how the pattern of actual salaries paid by departments throughout the company complies with established bracket limits, and whether there is a proper distribution within each bracket.
8. Pointing out undesirable trends and conditions in the entire salary administration program.

As indicated elsewhere, the knowledge of job functions gained in the analysis of organization problems throughout the company is of particular value as a basis for this work.

In order to co-ordinate departmental viewpoints and assure a broad and impartial consideration of salary matters, several companies have established wage and salary committees directly responsible to general management. These committees review the findings of the analytical agency and either take or recommend appropriate action in each case. As outlined, such a committee may appropriately consist of the director of organization, the director of personnel, and the divisional executive concerned with the salaries under consideration. Other executives are called into consultation as necessary.

Outstanding Contributions

ABOVE we have abstracted and highlighted the newer concepts of personnel and industrial relations contained in "Top-Management Organization and Control" by Paul E. Holden, Lounsbury S. Fish and Hubert L. Smith, Stanford University Press, Stanford University, California, 1941. 239 pp., price, \$4.00 (*Abstracts in standard type*).

To our mind the book is an outstanding contribution to the whole subject of industrial organization. It should be studied by every executive, and should be a constant source of reference to industrial relations and personnel men, in considering developments of their work, and their relation to the whole organization. It might well be the basic text for company programs of executive training.

Though having a specific industrial application, it should be of great value to executives in government service, in business, and in institutions, and social agencies.

Some reviewers have criticized the study as academic. We scarcely think this an appropriate phrasing of the criticism. It would appear to us, that what is really meant is that the essentially personal, fluctuating and dynamic character of industrial management is not given sufficient emphasis.

How to Maintain Balance

IT IS not sufficiently pointed up, that industrial organizations and methods of control may be ideal, from a logical standpoint, at any given time, but that fluctuations take place in the importance, functions and work-load of different departments and divisions. Also unexpected strengths and weaknesses develop among executives. These tend to throw a well balanced plan of action out of balance.

While not directly saying so, however, the authors do make provision for this matter to be watched, and remedied through the Organization and Personnel Control functions suggested. The methods suggested of dealing with it, we think, though apparently formal, are a new, real and realistic contribution to a basic managerial problem.

Workers, and Their Unions are Very Anxious to Participate Constructively with Management in the National Defense Program. An Attempt is Here Made to Delineate the Areas in Which They Can Best Do So. Managements might Well Discuss These Matters with Union Representatives.

Union Participation *in* National Defense

Correspondence

STEEL WORKERS ORGANIZING COMMITTEE
Pittsburgh, Pa.

December 8, 1941

Mr. Charles S. Slocombe, Editor
Personnel Journal
Personnel Research Federation, Inc.
60 East 42nd Street
New York City

Dear Mr. Slocombe:

I am very happy indeed to enclose my check herewith for five dollars (\$5.00) for renewal of my subscription to the JOURNAL.

I want to also take advantage of this opportunity to tell you how much I enjoyed your article in the current issue of the Journal which I finished reading late last night. I am sure that there are people in the management field who realize how anxious great numbers of workers are to participate constructively with management in the execution of the National Defense Program. It seems to me that one of the great mistakes of our time is the resistance of management to the expressed desires for more active participation on the part of the workers through their unions. Your excellent article and book review ought to be helpful in bringing this to the attention of your readers of whom I hope there are many among management.

With best wishes.

Sincerely yours,

CLINTON S. GOLDEN
Director, Northeastern Region
January 20, 1942

Mr. Clinton S. Golden,
Director, Northeastern Region,
Steel Workers Organizing Committee,
Pittsburgh, Pa.

Dear Mr. Golden,

Thank you for your letter of December 8 last, commenting on my article in the November issue of the *PERSONNEL JOURNAL*. I have delayed replying as I wished to consider the matter further.

I have never been convinced that Union-Management Cooperation, as usually proposed, is desirable. Very few attempts have been really successful, and many have led into serious trouble sooner or later.

However, the serious situation existing in England at the present time, warrants a reconsideration of the matter, to see the extent to which American unions can help in our avoiding the development of slowdowns in the National War effort of this country.

Industrial Councils Unlikely

I WILL enumerate below the points that occur to me.

I see little prospect of American managements accepting, or government organizing industrial councils of the Murray type, during the war emergency.

Labor relations history for the last eight years in this country, does not show an amicable or mutually trusting basis on which to found a fundamental joint cooperative organization. The shadow of these past relations, and their attendant events, would constantly be thrown across any plans developed, blur them and twist them out of proportion.

Management is certainly not ready to expose its books and cost figures to unions, in a way that would be necessary in an industrial council. The possible embarrassment, in future relations after the emergency of such an exposure, is a sufficient deterrent. (I suspect that in many cases unions also are not ready yet to expose their books and methods fully.)

It is very questionable, in the interest of the fastest possible maximum output, to make any drastic changes in the structure and functioning of industry as it has developed over the years. Rapid expansion along traditional lines would seem to be the least inefficient.

A Revolutionary Change

THE admission of labor to participation in the management function is a revolutionary change, which I suspect labor is requesting today, not wholly to facilitate the present situation, but with an eye to the aftermath.

Even under the best circumstances, it seems to me that it takes from ten to

fifteen years, for unions and management to get to understand each other, and work together in full harmony, even in the more limited field of labor relations. This is because, psychologically, methods of thought and action which may be traditional, or which have certainly, in most cases, become fixed habits, take a long time to change. These habits of the participants on both sides would constantly hamper the functioning of a new cooperative relationship, so that the war would most likely be over before the industrial councils got into action in any effective way.

The problems of possible conflict involved in these plans, have not, I suspect been thought through by labor. In the operations of joint committees, dealing with fundamental problems in a rapid manner, conflicts always develop among those on the labor side as to what should be done or proposed. Similar disagreements show up within the employer group. And over and above these is the actual or potential conflict of one side with the other. Time is necessary to iron these out, as the leisurely work in the clothing industry showed. These reasons would, I think, make present union proposals completely inoperative, even under the conditions of national emergency.

Unions Can Do a Tremendous Amount

THIS does not mean that unions cannot do a tremendous amount to facilitate the war effort, and help in avoiding here some of the difficulties they have run into in England. How far formal joint cooperative agreements are necessary, I do not know, but labor will certainly have to come down to earth, and be less all-inclusive in its proposals.

I will illustrate what I mean from the situation existing on the Pacific waterfront a few weeks ago.

Prior to Pearl Harbor, the longshoremen and owners had been in lengthy arbitration proceedings before Dean Morse. The union asked for more pay, and the owners were resisting on the grounds that the union had, by not living up to the current agreement, and permitting slowdowns, quickies, etc. so increased operating costs that no wage increase was possible.

The union based its case partly upon a denial of the owner's charges, which seemed difficult to prove, and partly upon the promise that if such things had been happening, they would behave better in the future. But such past promises allegedly having been frequently broken, the owners were not inclined to accept them.

The union would give no promises without a pay increase. So the situation was pretty badly deadlocked, the arbitrator was in a bad spot, and feelings all around were not the most amicable.

Private War Continued

AFTER war was declared the union came forward with an industrial council type plan for the waterfront, including a full exposure of the owner's books. The

plan, as the union knew it would, met with the usual negative response, whereupon, at the time I left the Coast, the union was reportedly in the process of seeing about getting the government to take over the waterfront.

I may be academic about this, but it seems to me that if the union really wanted, above all else, to speed up loading and unloading on the waterfront, it should have, on the outbreak of war, dropped its negotiations and arbitration proceedings, left the result to a fact-finding board, and set to work to turn ships around as fast as it could.

If it had done that, it could have depended upon its own bargaining strength, the fairmindedness of the arbitrator, and the reaction of the owners and the public, to ensure it got its just deserts.

Instead of which, the union through insisting on its unacceptable proposals, is virtually carrying on its private war with the owners, instead of with the Japs. Every ship that arrives in the Phillipines, and other Pacific ports, with essential war supplies, gets there at least three days late, because of no speedup on the docks.

I am not concerned here with whether the owners could have done what I am in effect blaming the union for not doing. That is immaterial. I am discussing your point as to how unions can help in the national effort.

It should have been possible to have set up a formal or informal joint committee agreement for speeding operations as quickly as possible, with no unnecessary industrial planning but, at the start, the union to so influencing its members that they worked all out. To avoid the shadow of past bad negotiating relations interfering too much with this set up, I suggested that the personnel of the negotiating committees on both sides be not involved in the participating committee, and that a Maritime Commission labor relations man be impartial chairman.

Tough Assignment for Union Leaders

I ADMIT it would have been a tough assignment for the union leaders to pull their men into line, and probably not all of them could have done so, but it would have been a test of union patriotism and leadership, which so far we have seen too little of, on the Pacific Coast or anywhere else.

There can readily be listed a whole group of things that unions can do to participate with management and the government in winning the war, with or without formal agreements, and mostly within their own work among their members.

Most studies of worker restriction of output, among both organized and unorganized workers show about 25% restriction in normal times. Why cannot the unions, in essential war industries see that this restriction is eliminated during the war?

Specific Factors Impeding Output

STATISTICS of company operations, relating the amount of supervision per man to output, scrap, wastage, delays, etc. show that when the supervision is new or spread out thin, inefficiencies increase. This is the circumstance now. Why cannot

unions get their capable and responsible members to do their work properly without having a boss standing over them all the time? This would relieve the work of the supervisory force, and permit them to give more time to supervising the less capable, and instructing new workers. Why cannot shop stewards encourage their men to work, rather than stop work to take up grievances, during the war?

Recent figures from England show increases of fatal accidents in factories of 24%, 33% in engineering works, 44% in making of machines and 21% in chemicals. It is probable that accidents are going up in this country. Why cannot unions actively participate in the safety movement in plants, to prevent this increase?

The report of the recent British Select Committee deals with Specific Factors Impeding Output, under the following heads: Hours of work for men and women, absenteeism, wages, management, discipline, transport and housing, feeding, lighting, incentives.

Problems Now Here Neglected

WE ALREADY face many of these problems here. For example in the matter of delay in getting from home to work and back, many plants have not yet gone on a staggered shift basis, and workers are forced to spend fatiguing time in congested streets surrounding many new factories, with insufficient roads.

One plant with 36,000 employees working on three shifts lets out 12,000 workers and lets in 12,000 workers three times a day, a sudden movement of 24,000 workers, with indescribable confusion. There is no reason why shifts should not be staggered to even the flow of movement. (In Germany, in some factories on shift changes, timing is staggered so that a portion of employees moves in and out every half hour for two and one half hours.)

This is a matter that unions could aid in organizing.

Car and tire rationing is going to play havoc with war workers going to and from work. Provision must be made for their transportation. Unions could right now aid in this problem, for no one else seems to be thinking about it. The conservation of rubber, by organizing so that all seats in all workers cars are full, and a minimum number of cars used, could also be aided by unions.

Locals of a union such as Steel, might well form committees, stimulated and guided by head office, to consider all ways in which they can help the national picture locally, with or without reference to the local management.

National unions could be similarly engaged in looking out for broader problems affecting worker efficiency, and avoidance of unnecessary inconvenience, and fatigue.

Local and National Union Participation

IN BROADER fields still, unions might seek to obtain from the President, as the English Unions did from Mr. Churchill, a promise that there shall be adequate worker representation on all boards, committees and councils, the results of whose

deliberations affect workers. (Churchill's promise was only partially fulfilled by government departments.)

There are at present being set up in America, rationing boards and local defense councils without labor representation. Others will follow. Trouble is inevitable, and interference with an efficient war output certain, if there are not put on these bodies people who know worker problems.

If unions will start off on these things right now, they will do, not a sensational, but a most constructive job, and one which, judging by English experience will be neglected unless they do. They will be operating in a field, in which they know the facts better than anyone else. They will be able to get things going immediately, and will essentially be serving their own members. They will steer clear of areas of potential conflict with management.

With best wishes,

Yours etc.

CHARLES S. SLOCOMBE

Book Reviews

Book Review Editor, MR. EVERETT VAN EVERY

University of California, Berkeley, Calif.

TECHNOLOGY AND SOCIETY

By S. McKee Rosen and Laura Rosen. New York. The Macmillan Company.

1941. 474 pp. \$4.00

Reviewed by Book Review Editor

Man has long worried about the resultant effects of his own ingenuity. From the earliest stages of social behavior to the present era of technological advances, man has feared the effects of his own ideas, his own crafty and cunning inventiveness, lest his work fall in the hands of the enemy to be used against him, or prove so successful that he finds himself "disemployed."

A few years ago some people looked upon technology as an industrial epidemic, something that would literally wipe out their jobs forever and leave the workers in a maze of social entanglements. Some reports show that workers protested against these "monsters" of industry that would displace the workman; they resorted to riots, shop breaking and persecution of inventors. Today, technological developments reveal the most comprehensive view and understanding of our whole social structure. We find the great inventions of the twentieth century line up as if on exhibit of what man can do when he sets out to work—the telephone, the airplane, the radio, the motion picture, artificial fibres, plastics, etc. In manufacturing the integration and synchronization of processes have been achieved by carefully analyzing the work to be done and then determining a procedure with definite division of labor and specialization of machinery. Once job routines have become depersonalized so that they can be relegated to machines, the application of the principle of continuous process is certain to follow. The continuous rolling of sheet steel is a good example of technological advances in steel manufacturing. The effect of inventions in the last few years on transportation and communication, agriculture, construction, and the professions (especially medicine) seem almost fantastic. At this stage man marvels at his own accomplishments. He has actually surpassed his own imagination.

But as his images grow—as he sums up his work and reflects on the results, he is puzzled with all the meaning. There is capital obsolescence, waste in production, the toll of machine displacement . . . and the danger that the human brain will not keep up with man-made machines. Could there be such a thing as management obsolescence, a lagging or indifferent interest on the part of management that is being out-distanced by a growing responsibility?

We concede that technology is founded upon the principle that machines can do the work of man—and even more; a good machine can improve on the speed and

accuracy of the worker—and never tire. We observe, too, that resultant adjustments are frequently harsh in their economic effects, but adjustments must be made, for the pressure of technology appears unending.

The book is a thorough text on the economic, social and political aspects of our technological advances. Every American business leader should give himself this background of the changes taking place in our economy. Throughout the book we find a thread of "amoral and impersonal technology which appears to be pointing out an unmistakable direction for society."

Grimly predicting what we now face since the book was written, the authors conclude in their last paragraph: "From all this the United States does not and cannot remain aloof. Efforts have been turned more and more to perfecting those weapons upon which the safety of the country depends. The adaptation of latest industrial techniques to the production of instruments of war goes on apace—always seeking to benefit from the most recent experience of nations engaged in modern warfare. There are military experts who believe that the most basic and time-tested principles of military tactics are being shaken and revolutionized by the new technology. Meanwhile no field which science and invention have developed in more peaceful times remains untapped. What changes may occur in all sectors of the American economy as a result are hard to estimate. The experience of the next decade may well serve to reshape the whole institutional fabric of America. Unless and until the use of technology is subordinated to constructive and socially desirable ends, the prospects for society in the future remain dim and uncertain."

MANUAL OF JOB EVALUATION

By Eugene J. Bengé, Samuel L. H. Burk and Edward N. Hay. New York. Harper & Brothers. 1941. 198 pp. \$3.00

Reviewed by W. P. Bell

In a time when industry is facing increased wage demands this book is a welcome contribution to the field of wage adjustment, and presents what one might expect from these three men—a complete and understandable treatise covering the theory and practical application of job evaluation known as the Factor Method.

The layman investigating the subject, whether from necessity or choice, will find the section devoted to theory, background and comparison of the various systems well worth the price of the volume. Formerly the fund of information in this section of the book was only obtainable through lengthy research.

For the person planning an installation of a program of job evaluation the specific, step by step instructions, with the detailed exhibit of necessary forms contained in the section devoted to the Factor Comparison Method offers complete guidance to the practical determination of equitable wage and salary rates within an organization.

The last part of the book on "General Considerations" is by no means the least important. The guide to the maintenance of a systematic program of wage and salary administration with the general discussion along kindred lines will be of value even to those who may not be responsible for job evaluation work itself.

The manual is a valuable addition to the library of any organization where the working executives are sincerely interested in equitable wages and worker morale.

BETTER FOREMANSHIP

By Glenn L. Gardiner. New York. McGraw Hill Book Company. 1941. 336 pp. \$2.50

Reviewed by Jack Frost

"Labor-Management cooperation saved
England in her darkest hour while
for lack of it France fell."

These prophetic words by Donald Nelson, director of SPAD, could aptly have been inscribed on the fly-leaf of this book. The work could well have been dedicated to the thousands of foremen who will be mushroomed into supervisory jobs by the sudden expansion of defense industries. The book not only brings home the importance of the foreman's responsibility in maintaining labor-management cooperation, but it also furnishes the answer to many of the problems which the rapid expansion of industry must inevitably thrust upon him.

"Better Foremanship" has a twofold purpose: (1) To make the foreman more cognizant of his present responsibility because of the important part he must play in establishing America's supremacy in the battle of production; (The two jobs, producing and fighting, are inseparable and both must be shouldered with the same determination and seriousness.) (2) To provide the foreman with a practical guide to help him over the rough spots which must necessarily follow the increased emphasis on production.

We know the foreman to be essentially a practical man. The average "do" and "don'ts" are abstractions to him . . . they are of little value unless he can apply them to actual experiences. The author wastes no time on abstractions, but instead presents his topic in down to earth question-and-answer style. Each of the twenty-three chapters contain from ten to twenty questions with the text devoted to sound practical answers. They are concrete solutions and suggestions which any foreman can use in his own particular situations as they arise.

The first part of the book is entitled, "New Features in the Relationship Between Foremen & Workers." Here the author is referring to the accelerated tempo of production on the foreman's job and the greater emphasis on workers' rights since the advent of New Dealism. That neither employer nor employee can profit permanently at the expense of the other, is the keynote of the section.

The second part on "New Ways of Handling Foremanship Functions," has as its primary objective the substitution of "Golden Rule" tactics for "Thumb Rule" methods, and is a follow-through of part one wherein the author reviews the principles of good foremanship in the light of its latest problems.

The third and last part is devoted to an enlightening discussion of such troublesome myths as "capitalism", "wealth" and "profits." Realizing that our industrial expansion will meet with opposition from within as well as from without, the author has furnished some very common-sense reasoning which will appeal to foremen and deflate the insidious propaganda spread by class conscious-agitators and labor dissenters. In this respect Mr. Gardiner has done an outstanding job.

EXECUTIVE LEADERSHIP

By Eugene J. Benge. New York. National Foremen's Institute. Loose-Leaf.
\$12.00

Reviewed by Book Review Editor

Leadership is something in American enterprise that we all seem apt to recognize, but its cultivation and teaching is something else . . . something that few of us do very little about. The old school of thought would say, "You have it or you don't."

If leadership can be said to be the happy combination of those personal qualifications that attract others to cooperate and to follow with enthusiasm and admiration, then it can still be said to be an art in American business. On the other hand, general business practices in finance, production, sales promotion, cost control and personnel management appear to be approaching what may resemble a science: general principles and standards have been accepted. But the principles of executive leadership do not appear to be standardized. Outstanding leaders come and go—and with them go their techniques of personal leadership which few people have taken the trouble to analyze and formulate.

An encouraging sign is the rippling interest now appearing in the general management and leadership field of current business literature. This neglected area may account, to some extent at least, for the lack of leadership and existing confusion in endeavoring to handle our domestic labor problems.

The material in this loose-leaf volume consists of fifteen actual conference transcriptions on as many phases of executive leadership. Each section is crammed with ideas and practices in the field of personnel management, especially adapted to problems arising in the "white collar" group of supervisors and for foremanship conferences.

Conference sections are devoted to Management Problems, Supervisory Controls, Searching for Workers, Skills & Working Habits, Conducting Employee Meetings, Training Devices, Layout & Flow of Work, Supervision & the Silent Strike, Labor

Relations, Public Relations, etc. In the discussion of supervision and its relation to morale, Bengtson emphasizes the consideration that should be given to this problem, and believes it merits the same important study as would be given to a new bond issue for the company, the establishment of a new plant, or the developing of new selling outlets for the company's products. He believes that history will tell of employee morale as the most important single problem facing management in this era.

With equal emphasis each section does a clearcut job of stressing the importance of good management techniques, which when used by able men to carry-on, should be a good beginning toward establishing and revealing some of the necessary principles and standards of business leadership.

This management folio should make a fine conference manual for junior executives . . . although I have had to retrieve my copy many times from the older heads who seem to relish it even more.

HOW TO INTERVIEW

By Walter V. Bingham and Bruce V. Moore. New York. Harper & Brothers.
1941 (3rd Ed). 263 pp. \$3.00

Reviewed by W. H. Sellander

"An interview is a serious conversation directed to a definite purpose. Its aims are to gain information, give information and to motivate." With this thesis, our two well known psychologists have revised a favorite text and spiced it with interesting examples and recent experiences.

The book outlines the various purposes and uses of the interview: (1) The employment interview to appraise the abilities and possibilities of growth of the individual, (2) The interview by the vocational counselor, (3) Interviewing to secure public opinion polls and market surveys, (4) The interview in social case work, (5) Interviewing people in trouble, (6) The reporter's interview, and (7) The interview for legal evidence.

The beginner will find many helpful suggestions on learning how to interview; and the experienced interviewer will discover references to new techniques in other fields that will become very useful in perfecting his own interviewing. In conclusion the authors give us a miniature review of the whole subject and a terse description of their work: "Could a single interviewer combine in ideal proportion the care and training and objectivity of the interviewer in commercial surveys, the intuitive sympathy of the social worker, the common sense and understanding of the employment interviewer, the technical skills of the specialist in public opinion polls, the patience and insight of the psychiatrist, the educator's breadth of grasp, the self-immolation of the interviewer in employee relations, with the lawyer's facility and reporter's persistence, he would be no longer in need of the interview as a means of ascertaining facts, for they would be known to him already."

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Commerce Department Specialists Estimate that If the High 1942 War Output Goals Set by the President are Realized, Production Indices will Rise to 180. Their Predictions are Studded with "Ifs". It is Up to Personnel Men to Take these "Ifs" out.

Worker Morale *as* A Personnel Job

BY CHARLES S. SLOCOMBE

Personnel Research Federation,
New York, N. Y.

THE debacle in the Pacific is going to bring the war closer to us quicker than we expected.

That the Japs and Germans are going to bomb out the airplane plants of Lockheed, Consolidated Aircraft, North American, Boeing and Martin, as soon as they get through in the Southwest Pacific is very evident—unless these plants can produce so fast that their products can be used for their own protection against enemy bombers. The same is true of ship-building and navy yards which are scattered up and down the coasts of America.

Will We Be Smacked Down?

OUR present schedules call for adequate production, and air and naval protection of these plants by the end of 1943—but Hitler and the Japs are going to launch a spring offensive in the early months of this year—and so will probably blow our production schedules to hell. We plan to be ready to meet the enemy two years from today, but he plans to smack us down tomorrow.

The present reaction to these events, as judged by the daily press, is for almost everyone to be blaming everyone else for what is happening, and for the main mass of Americans to be unaware of what they individually and severally should do to prepare for the worst that is yet to come.

It is high time we stopped acting in this way, and got seriously down to the business of prosecuting a fast total war. To this end constructive proposals should

be made rather than destructive criticisms, and we should seek in every direction to see what we can do, and help organize others to do.

Strategic Position of Personnel Men

PERSONNEL men are strategically located so that they can have a wide influence in this matter. This is particularly so, when we think of the backing up of our armed forces that has to be done, by the civilian working population. In so far as probably some twenty million workers are influenced directly or indirectly by personnel men, their importance as foci for the maintenance and strengthening of worker and civilian morale cannot be overestimated.

We enumerate below the specific matters requiring their attention, as war measures.

The statistics of labor turnover, by the National Industrial Conference Board show, according to our analysis that the ratio of quits and discharges—mainly quits—to hirings or accessions of labor is about 60%. This was before the disturbance of the labor market, due to priorities and conversions.

Workers quitting their jobs, because they do not like the way the foreman speaks to them, or because they do not like the job, or because they think they can get a better one elsewhere, or because they want a change, or because they are not fitted to the job, create tremendous problems for industry.

Freezing of Workers in Jobs

THEY cause a constant disturbance to production, because of the constant need of inducting new workers, and getting them used to the special peculiarities that each plant has; they throw a constant strain on employment and training departments; they disturb regional wage rates; and in fact they slow down the output of essential war supplies all along the line.

This matter has been so serious in Germany, that freezing of workers in jobs was long ago resorted to. In England as the needs of war production stepped up it became so serious there that, even in a democratic country, labor compulsion and freezing of men in their jobs became necessary.

Personnel men, it seems to us, can do much here to make it unnecessary that we should have to adopt compulsory measures.

When a worker is hired, it seems to us, that the employment manager or someone in his department could spend time to point out to the worker that it is his patriotic duty to stick to his job, that he may find some things he does not like about it, but that as soldiers in battle do not like a lot of things they get up against, but stick to it, so the worker should stick to his job in turning out war supplies, even if everything is not to his liking.

A Dust-up with the Foreman

WE DO not know if this sounds silly—but it is an important problem in civilian morale, which brings home to the worker his share in the war effort. Some such work is obviously necessary, for it is really tragic to sit in a movie house, and hear the workers around one applauding the bravery of American soldiers, as shown in a newsreel, and then hear them outside talking of their intention of quitting their job in a defense plant, making the supplies that General MacArthur and others so sorely need, and will need, just because they have had a dust-up with the foreman.

We think personnel men are strategically placed to build the type of civilian morale, in this respect, which is now essentially lacking.

We have pointed out before, and make no apology for repeating the statement, that under peace time conditions, restriction of output among workers, organized and unorganized, amounts to about 25%. We are going to face a tremendous labor shortage, that is a shortage of the number of workers available, to get out war production necessary.

But nowhere have we seen any discussion of the fact that these labor estimates are based upon the assumption that workers will work no harder on war orders than they did on peace orders.

Easy Going Workers

CURRENT estimates indicate, on these assumptions, that we will require twenty million workers in war industries. And we do not know where we are going to get them. If we could get sixteen million workers, and they do not restrict their output by 25%, then we would get as much production as twenty million easy going workers would turn out.

Here is another vital problem, that personnel men are strategically placed to influence. Whether they do it by setting up joint union-management production committees, or by some other means that they can devise, we cannot say. But that it is a job for personnel men to do is obvious. Its influence on a fast productive output can be great, and its influence in strengthening civilian morale, by ensuring participation of the individual worker in making his contribution to the defense of his country, is of vast importance.

Personnel men have another job in making sure that the supervisory force understands these problems. Foremen influence worker morale in three ways. First, there is the problem of their developing such relations with their men that motivation to work is maintained and increased. The homely sort of bulletin, such as that published in the Personnel Journal of September, 1941, under the title "The Responsibility of Being Boss" has been found quite effective by many companies.

Discipline Difficult

THE second problem is that of discipline. With a very tight labor market, and workers being able to get new jobs immediately upon leaving the old, with not too many questions asked, those requiring discipline have to be handled in a different manner than hitherto. This problem should be studied by individual plants, and taken up in supervisory training classes.

The third problem is that of work assignments. There is nothing more destructive of worker morale, than their having to spend idle time, while waiting for materials on which to work. This is a difficult problem, particularly as deliveries of materials are often late, and production scheduling is disrupted. However, it can be mitigated by increased care in planning by supervisors and production men.

The Hours Problem

EXCESSIVE hours, or other conditions leading to undue fatigue, have been found to have a very bad effect on morale, and lead to low output, many grievances and much absenteeism. This problem of the best hours of work, and shift scheduling for men and women, and for different jobs, to obtain maximum output, should certainly be studied by some research agency, such as the National Research Council.

Failing such a study, or supplementing it, larger companies have sufficient records so that personnel men can, by a study of them get a pretty accurate idea on this matter. It is vitally important, and improperly handled has been found to seriously reduce output, both in England and Germany.

Morale of Women Workers

EXPERIENCE in other countries where substantial numbers of women workers have been hired, indicates that the problem of morale among women workers is difficult to handle. Personnel men should therefore begin planning to deal with this problem, in plants which contemplate the hiring of women workers.

Where the work is so organized that whole departments or divisions are staffed entirely by women workers, experience seems to indicate the desirability of having women supervisors. This is more difficult where men and women workers are mixed.

The problem seems to be handled best then, with male supervisors, but with an adequate number of women in the personnel department. Plants contemplating the hiring of any number of women should, in building up their personnel departments, certainly see that there is an adequate number of women personnel people.

There are two other influences which are very strongly destructive of worker morale, and which are very difficult to deal with.

Labor's Barrage of Destructive Criticism

ONE is the constant barrage of destructive criticism of management maintained by labor newspapers and magazines. According to these publications there is nothing good about management at all. They say it is "selfish," "crooked," "shortsighted," and use all the other condemnatory words they can think of.

The second bad influence is the constant criticism of management in Congress, particularly as applied to the profits which are allegedly being made by war supply contractors.

Both these morale destroyers will probably continue as long as the war lasts. Their effect is so bad among some workers, that they have slowed down their work as much as they possibly can, and say that they will not behave differently for private employers, but only for the government.

Just exactly how these problems can be dealt with by personnel men, except by persuasion and counter propaganda, we do not know. But most of the questions dealt with in these criticisms are matters of broad national policy, and do not come within the scope of individual worker action.

Worker Morale Committees Proposed

BECAUSE a worker thinks that his employing company is making too much profit, is no reason why he should slow down his work in building planes or ships or guns to beat Hitler and the Japs. Let him work all out to win the war, and if he thinks the boss is making too much profit out of his added exertions, let him write to his congressman suggesting increased profit taxes.

Or if he is disgruntled because of some question of wages or union security, that is no reason for his slowing down in his work. Let him go on working all out, and let the matter be decided by the War Labor Board, which has been specially set up to see that workers get a fair deal.

We are fighting nations that have, through vastly increased personnel forces, and the organization of worker and civilian morale, got their production of war materials up pretty close to the maximum. We cannot afford to do other than see that, by the democratic processes available to us, we get maximum production also.

To implement this we suggest that every personnel department should immediately organize a suitable "worker morale" committee, with or without labor representation, as the circumstances justify, to study and carry out every available means of interesting its employees in maximum output.

This Procedure is Designed to Help All Those who Instruct Workers On the Job—Group leaders, Sub-foremen, Lead Men, Job Setters, Experienced Workers; that is All Those Who Direct the Work of Others, from Foremen to Works Managers.

Streamlined Job Training

BY TRAINING WITHIN INDUSTRY BRANCH

War Production Board,
Washington, D. C.

IN THE conference room of a machine tool factory near Cleveland ten veteran foremen and one outsider were holding a meeting. It was a peculiar meeting. One foreman was showing another foreman how to assemble a common or garden variety of hacksaw—a simple gadget—one you can buy in a store for a quarter. The others watched closely, made notes and awaited their turn at explaining some simple job to the others. The eleventh man, the conference leader, was a War Production Trainer. What led up to this meeting and hundreds of similar ones now going on throughout the nation is an interesting phase of war production.

Taking Charge of New Employees

PRE-EMPLOYMENT training in public schools and N.Y.A. centers has been emphasized in the government's war preparedness effort. Supplementary training programs to upgrade workers were in progress in high schools, in colleges, in adult education programs, and in industry itself. But the Training within Industry Branch of the War Production Board's Labor Division went further. They asked: (1.) After this preliminary training, who trains the individual man or woman to do the specific industrial operation? (2.) Who explains a new job to a worker? (3.) How many people are there who have to do this breaking-in and training on the job? (4.) What assistance can we give these people in time to do some good in this emergency?

Answers to the first two questions were obvious. It is the foreman, assistant

foreman, "lead man," gang boss, or some specially assigned veteran employee who at the foreman's request takes charge of individuals starting out on a new job.

The answer to the third was that for every ten workers there is one "supervisory" person, however titled, who should be able to instruct a man on a new job quickly, easily and effectively.

The answer to the fourth is the War Production Training Plan which was developed by experienced industrial training and personnel men under the leadership of C. R. Dooley, Director, and J. Walter Dietz, Associate Director, of the Training Within Industry Branch, plus other outstanding personnel and industrial training men. These men took existing supervisory training courses, streamlined them, and then gave them in "packaged" form.

A Personalized Coaching Procedure

AFTER giving these abbreviated lessons, the results were discussed and the material condensed still further. A few more cycles of instructing and revising, and a compact, practical procedure was distilled out of the previous material. The net result was not so much a training course, as a personalized coaching procedure for small groups of supervisors, sticking to the theme: "How to Instruct a Man on the Job."

The War Production Training Plan places in the supervisors' hands a simple, keen-edged "precision training tool." Four steps in breaking in the worker on a new job are explained, demonstrated, practiced and reviewed until they become second nature. These steps are not new, but they are often forgotten, misplaced or slighted in the general hurry of the times.

The program as given develops self-confidence. It gives a supervisor experience. It becomes second nature for him to organize his thoughts and actions when breaking in someone on a new job. The new worker gets into production faster and learns by doing. Getting quickly onto the knack of a job is also good for morale.

Picked Men Do the Training

THE Job Instructor Trainer is an individual with talent for and experience in this kind of coaching. An industrial training man, a department head, or a personnel supervisor, he is picked for his knack for this work and his experience. By means of a Job Instructor Training Institute covering exactly the same material given the supervisors in their ten-hour session—but in more detail—the Trainers are carefully prepared by experienced instructors assigned to this work by the Washington Office of T.W.I.

These Trainers are free to conduct sessions in their own companies, but in addition arrangements are made with the State Departments of Vocational Education

so that their services are available to *other* companies and industries. Scheduling and compensation for Trainers (for after-hour work) whether day or night is handled by State Departments of Vocational Education.

This program does not teach foremen how to assemble axles, or run a milling machine, or mix chemicals in a powder plant. What it does—is to impress on the supervisors who do know how to assemble axles or run a milling machine or mix chemicals in a powder plant *how to pass along that knowledge to others in the most simple, effective and rapid manner*. The most technically competent supervisors, the master mechanic, is often the one who benefits most by this simple drill in imparting knowledge. How to instruct is a skill every supervisor needs every day.

Notice that we say “explain a new job to a worker.” We express it that way for a purpose. This program helps explain the job. The worker may be transferred from another job in the same department or from another department, or he may be newly hired. Where the worker comes from does not matter. The technique is just as applicable to a worker transferred ten feet, or across town, as to one from the farm. The ten-hour program is compact, carefully planned, practical and without a moment of wasted time. It is a single-purpose training tool and an efficient one.

Assistance to War Contractors

INDUSTRIAL employers who are expanding forces, transferring employees to new work or otherwise requiring supervisors to instruct new workers on jobs that are new to them can profitably get in touch with the nearest District Office of the War Production Board to avail themselves of Job Instructor Training Service.

Although Job Instructor Training is but a few months young, over 900 plants have already subscribed to the program. More than 1,000 Trainers have been certified by the Training within Industry Branch to give this streamlined training. Well over 20,000 foremen, “lead men,” skilled workmen and supervisors have taken the training in those 900 plants (employing in excess of 1,500,000 people).

Answers to basic questions about this Job Instructor Training program of the War Production Board follow.

What it is designed to accomplish

Typical problems in war production plants which the Plan has helped solve.

Production problems

Deliveries delayed because of errors and mistakes by men making the parts.

Men don't know their jobs.

Mix-ups in trucking service.

Parts returned by other departments because they were not made right.

Operators have special problems because of engineering changes.

Poor planning.

Men have difficulty in getting up to production on new type equipment.

Aisles too congested.

Excessive wear and tear on equipment.

Safety problems

Safety equipment not properly used.

Material not piled properly.

Poor shop housekeeping.

Don't know safety rules.

Men don't know hazards of their jobs.

Men get careless.

Minor injuries not reported.

Quality problems

Meeting inspection standards.

Too much scrap or re-work.

Jigs and gauges not properly used.

Not following specifications.

Too much left to operator's judgment.

Personnel problems

Men leave to other plants—couldn't "get the hang" of the job.

New men lack experience in mechanical things.

Lack interest in the work.

Men want transfers—think they can "make out" better on other jobs.

Claim to have good experience but don't "come through."

Too much time to get up to production.

Instructed wrong way.

Can't get experienced men any more.

Men get discouraged learning the job.

Who originated it

The principles of job instruction set forth in the Plan have been used in American industry for 25 years. They were first tried out during World War I.

The present condensed Plan was worked out by a group of the nation's leaders in industrial training, loaned by their companies to the War Production Board for this purpose, along with Federal and State representatives for Vocational Education.

STREAMLINED JOB TRAINING

How it operates

The training is given in 5 two-hour sessions, at any periods convenient to the companies and those who attend. It can be given at any time, day or night, on any days, Sunday included.

How many in groups

Best results are obtained with groups of 12. With groups composed of more than 12, there is not sufficient time for actual individual practice. This Plan is not a discussion of theory but a plan where participants spend most of their time actually DOING the instructing job.

Who will conduct the sessions

The 5 two-hour sessions will, in most cases, be led by experienced industrial men, serving part time, who have been specially trained to do this job. The quality of the work of these "WPB Trainers" is kept at a high standard through supervision from headquarters.

What does it cost

This training is given without cost to all companies holding war production contracts or sub contracts. The WPB Trainers receive a modest hourly compensation out of Federal funds, administered by the State Vocational Board.

How to get it started

All that is necessary to get started is to notify the District Representative, of the War Production Board's Training Within Industry Branch, or one of the District Representative's Training Consultants.

A schedule supervisor will call promptly to meet with the Plant Superintendent, Personnel Manager or some designated person, to complete all arrangements for the first group, and subsequent groups.

In the Use of Psychological Tests for the Difficult Job of Selecting Air Force Flyers They are Concerned with Only Two Categories—Successes and “Wash-outs.” Such a Table as that Given Will Determine the Expected Percentages of Each, and May be Used to Judge the Use of Tests in Industrial Hiring.

Forecasting Job Efficiency

BY HENRY E. GARRETT

Columbia University,
New York, N. Y.

OPINION as to the value of mental tests in forecasting efficiency-on-the-job depends usually upon what one expects from the tests. The employer who wishes to select a group of employees from among a large number of candidates is inclined to be favorable toward the tests. This is because he finds that he can select the best 10 or 15 men for a particular job, by means of a test battery, better than he can select them by interview or by impression alone.

But a prospective employer who wants to forecast the probable achievement of a given individual on the basis of his test scores is not impressed by the predictive power of correlation coefficients and the regression equation. Instead, he is impressed by the size of the standard error of estimate, and by the oftentimes considerable range in an estimated score.

Difficulties in Selecting Individuals

AN ILLUSTRATION will bring out more clearly this divergence in viewpoint. Suppose that 100 men have been rated on a 5-point scale for efficiency at a particular job; a rating of 1 is taken to denote superior performance, a rating of 5 inferior performance. Let the mean or average rating for the group be 3.4 and the standard deviation be 1.00. Now if we have a battery of tests which correlates .50 with the “criterion” ratings, the standard error of estimate will be .87 and the probable error of estimate .58. This means that if a man’s job performance, as estimated from his test scores, is 3.0, we can only be sure that his actual job rating will fall between .68 and 5.32 (that is, within $\pm 4\text{PE}$ of his estimated score). It is clear, therefore,

that we cannot be sure from our estimates whether our man is good, fair, or poor—as his “true” rating may lie almost anywhere along the rating scale. In cases of individual prediction like this the regression equation makes a decidedly poor showing.

It may be argued, on the other hand, that in attempting to predict individual performance from test scores we are asking too much of our battery of tests—more than we have a right to expect. It should be noted, for instance, that of the 10 men who score highest on our tests, half of these will not vary from their predicted ratings by more than .58 (about $\frac{1}{2}$ unit) of the scale. Also, as may be seen from Table 1, when $r = .50$, 67% of those who fall in the upper half of the test distribution will also fall in the upper half of the distribution of ratings.

85% Accurate Group Selection

OF THE 10 top ranking men in the tests were selected for the job, 85% or 8.5 of these would fall in the upper half of the performance ratings. Assuming all men rated above the mean to be “successful,” our forecast of success for the 10 chosen would be very high indeed. This kind of prediction is probably what the prospective employer wants to know more often than he wants to know the probable performance on the job of a single selected individual.

The difference between these two kinds of forecasts—that of individual performance and that of the “best” candidates, has an analogy in the work of the actuary. From tables of life expectancy one can tell quite accurately how many men, now aged 30, will survive to age 50. But prediction of the life span of a given individual is a dubious undertaking.

Table 1 provides a simple method of estimating the probable success on the job from a knowledge of test scores. The table reads in the following way. Given a correlation of .50, say, and a group of 100 men, 67% of the 50 men who stand highest on the tests (33 in all) are also among the 50 who rate highest in job performance. Let us suppose that there are 50 candidates for a job and that we want to select the “best” 10.

Now, if the correlation between our test battery and success on the job is .40, how good will our selection be if we pick the top 10 men in our tests? From Table 1 it is clear that 7 to 8 of these men will be in the upper half of our job-performance criterion, i.e., will probably be successful. Of the top 25 men in the tests, at least 17 or 18 of these will be in the upper half (successful part) of the job-performance measures.

Value of Experience and Occupational History

IT SEEMS likely that careful evaluation of the experience and occupational history of these 25 men, plus interview data, would quite possibly lead to 100% correct selection of the 10 “best” men. If the correlation between tests and job perform-

ance were .50 or higher, the chances of correct selection would be correspondingly increased. Test batteries are not, of course, the only means of efficient selection. But it appears obvious that tests will greatly increase the effectiveness of the usual selection methods.

TABLE I

SHOWING THE PERCENTAGES IN DESIGNATED PARTS OF THE DISTRIBUTION OF SCORES IN TEST X WHICH, FOR GIVEN AMOUNTS OF CORRELATION, FALL IN DESIGNATED PARTS OF THE DISTRIBUTION IN TEST Y

For industrial purposes Test X is the score of applicants for jobs in any intelligence and aptitude tests that may be given them. Test Y is their performance on the job, as indicated by training records and supervisory ratings.

	CORRELATIONS										
	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Perc. in upper 50% of X also in upper 50% of Y.	50	53	57	60	63	67	70	75	79	85	91
Perc. in upper 25% of X also in upper 50% of Y.	50	56	60	66	70	76	82	88	92	98	
Perc. in upper 10% of X also in upper 50% of Y.	50	57½	65	70	75	85	90	95	97½		
Perc. in lower 75% of X also in lower 75% of Y.	75	77	78	79	81	83	85	86	89	92	95
Perc. in lower 90% of X also in lower 90% of Y.	90	90½	91	91½	92	92½	93½	94½	95	96½	98

Conclusion

GIVEN reliable test batteries and reasonable correlations with criteria, one can select—with considerable accuracy—applicants most likely to be successful. Table I enables us to tell quickly what percentage of those scoring within designated parts of the test distribution will also fall within designated parts of the job-performance distribution.

The Plan Referred to in This Article Has Been Submitted to Local Authorities, and Has Been Given Tentative Approval.

Plan *for* A Labor Pool

BY CHURCHILL CARMALT

Honolulu, Hawaii

THE defense program is dead. It was of great service while we were protecting ourselves and yet were not actually belligerents, but today we are in an all out war, not solely to defend this country, but to insure our lasting freedom by exterminating Hitlerism, which, translated, means a program of offense. We cannot defeat the Axis by words or blueprints of potentials, but only by actions and tremendous production.

Three Steps Seen Necessary

AT THE current writing there are some fifty million productive workers in the United States. Congress recently enacted draft legislation calling for an armed force of some ten million men. The President has asked for doubled and quadrupled production of military essentials. The last two are necessarily requirements for winning this war, both of which fall predominantly upon the shoulders of the average American from the age of 18 to 64. And those persons comprise that large group of people to whom we often casually refer as "labor."

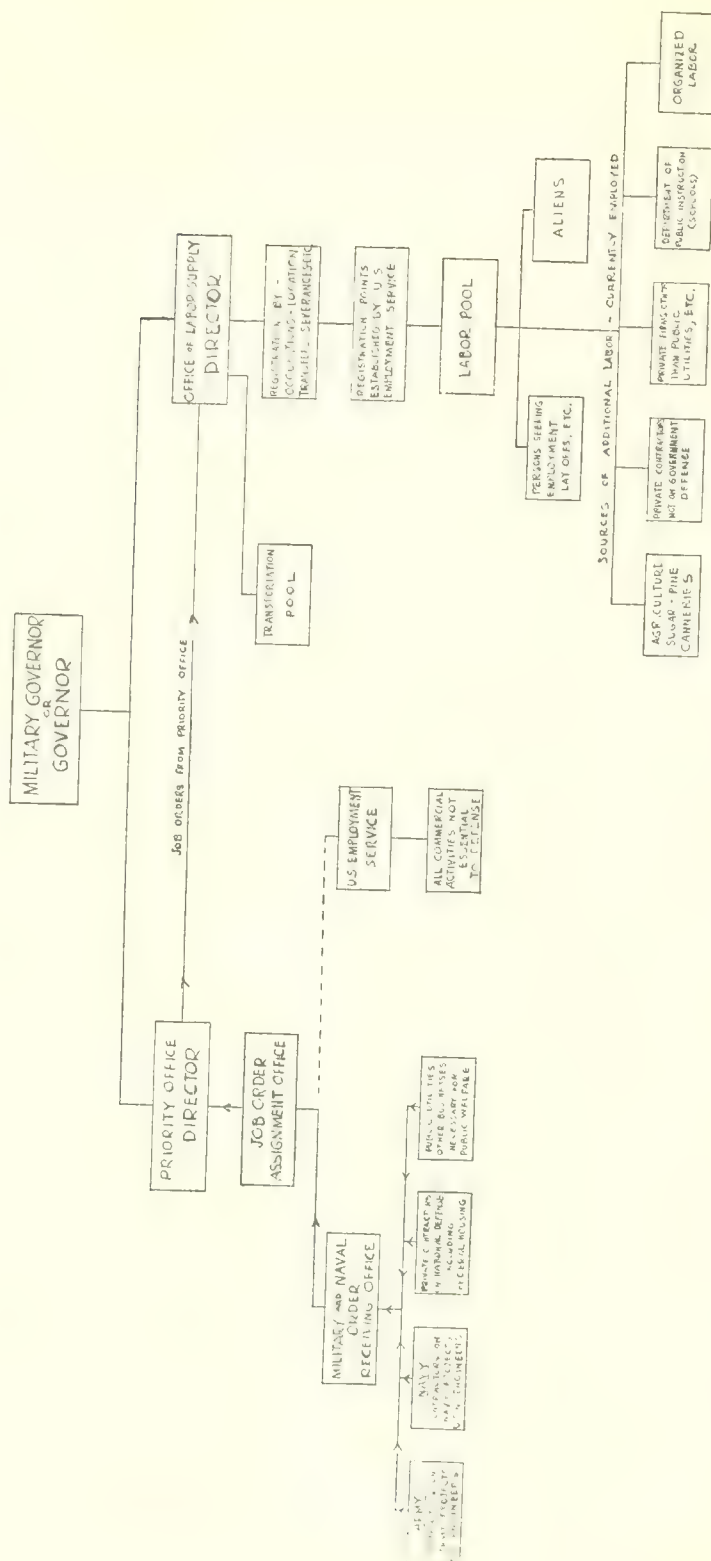
In order to reach our goal there are three paramount steps that must be taken:

Labor, management and government must work together for the mutual benefit of all. Cooperation, and genuine cooperation, is essential. The grasp for power, selfishness and political favor must cease.

Intelligent regulations affecting hours and other working conditions must be put into effect to achieve maximum output.

Man power must be coordinated and utilized to the greatest possible degree.

LABOR POOL



OFFICE OF CHURCHILL CARMALT
IN COLLABORATION WITH
L. Q. McCOMAS, ACTING DIRECTOR OF LABOR
HONGKONG, T.H. DECEMBER 22, 1941

FIG. 1

There is, in addition, another aim that must never be lost sight of, and that is the future. We should prepare now for the post-war transition and at the same time make every attempt to protect businesses not immediately needed for the national welfare. In this last connection we even envisage the possibility of taking over certain small enterprises for military uses.

The accompanying chart and explanation is the framework of a plan to further our united efforts and to insure our immediate aim and ultimate victory. While this plan was drawn up with the Territory of Hawaii in mind, we believe it to be sufficiently flexible to operate for the nation as a whole in the various states as well as the territories. Furthermore, it can be of particular assistance in the post-war period in limiting unemployment and other dislocations resulting from the present emergency.

Plan for a Labor Pool

UNDER the military governor, or, in the event that martial law is rescinded, under the civilian government, it is proposed to set up an agency to coordinate, conserve and utilize man power to the best possible advantage. This proposal contemplates two functional offices:

An office to determine what defense project, or what work, should have priority; this to be known as the "Priority Office"; and

An office whose primary duties would be to requisition and dispatch men where they are most needed; this being known as the "Office of Labor Supply."

Priority Office

THIS office should be composed of a board, with a duly constituted chairman and three additional members representing the Army, Navy and the Public.

Functions of Priority Office: Shall advise daily, or as necessary, the Office of Labor Supply:

- (1) What work shall receive preference in allocating men;
- (2) What work can utilize temporary employment, such as when stevedores or truck drivers regularly employed are temporarily idle due to lack of freight to be moved or when there are no ships in the harbors;
- (3) What work needs permanent additions;
- (4) Receive and transmit to the Office of Labor Supply requisitions for additional men required on military projects, public utilities, and such other work authorized to be conducted for the safety or defense of the community;
- (5) Advise the Office of Labor Supply as and when necessary upon what projects or in what occupations, aliens may be employed.

Office of Labor Supply

THIS office should be composed of a board with a duly constituted director and three other members representing the public, industry and organized labor. Its functions should be:

- (1) Compile by occupation and employer and register all persons employed in any capacity, and all other employables.
- (2) Maintain records pertaining to lay-offs, temporary or permanent, and all other severances of employment.
- (3) Create a labor pool of:
 - (a) Those persons not regularly employed or whose regular employment is terminated for one cause or another;
 - (b) Aliens;
 - (c) All those working, but subject to requisition when more important conditions arise.
- (4) Set up a transportation pool to transport workers from one job to another or from a registration point to the job allocated.
- (5) Receive requisitions from private employers other than the public utilities and other businesses necessary for the public welfare.
- (6) Assist in finding employment for aliens and persons seeking employment.
- (7) Coordinate organized labor offices and other authorized employment agencies.
- (8) In conjunction with organized labor and industry compile rules and regulations for:
 - (a) Hours of work;
 - (b) Wages
 - (c) Method of payment;
 - (d) Other matters affecting working conditions.

The Office of Labor Supply can be of service in at least two other respects:

Assist industry to the greatest possible extent so that in so far as possible firms will not be too severely crippled or permanently put out of business;

Help the readjustment to normal life when the existing emergency is over and the post-war period comes into effect.

Individual Differences in Ability and Personality are the Result of the Two Opposed, but At the Same Time Closely Interwoven Forces of Heredity and Environment, or More Simply, Nature and Nurture.

Psychological Racketeers

BY FORREST H. KIRKPATRICK

RCA Manufacturing Company,
Indianapolis, Ind.

ACADEMIC training and intellectual aptitude are not, in themselves, any assurance of economic or job success. Wearers of Phi Beta Kappa keys sometimes do routine jobs at a low wage under the direction of college flunkers. Situations of this nature quickly bring us to the realization that there is such an entity as "personality" and that, regardless of what it is or how it is defined, *it is mighty important*. It must be evaluated in terms of its power to make us socially effective. The psychologist sometimes calls it "our social stimulus value."

The Mania for Success

WHEN one realizes the importance of personality to an individual's social and commercial success, it is easy to understand why personnel officers, psychologists, and educators are devoting a great deal of time to one or more phases of this interesting field of research. But research is tedious and progress in this field is necessarily slow. In the meantime, the universal mania for "success" has tempted the avarice of a host of psychological racketeers who peddle "personality."

Through fairly painless but costly lecture courses, radio chats, personal advice columns, crystal gazing, slogan cards, and even breathing exercises, the psychological quacks or racketeers are having their day. Often the daily newspaper will carry paid advertisements of "doctors" or "professors" who hold forth in private residences, lecture halls, or hotel suites with their modest claims boldly announced:

Professor Bunkum

World's Renowned Psychologist

Will remove the inferiority complex that now holds you back. Will tell you how to acquire personal magnetism and professional success.

They appeal to those who are prone to believe in the miracle of results without effort and the power of money to purchase even the things of the spirit. Perhaps the fact that these fakers prosper is some evidence that there is no lack of desire for self-improvement among us today. The pity of it is that so many are fooled by such bunk masquerading as psychology. The mails are full of syndicated messages of dealing with "personal magnetism" and personality problems. Many seem to believe that the old Coue-technique of "Every day I'm getting to be a greater success" will ultimately lift them into an executive chair with "all the rights and privileges appertaining thereto."

Did the Cow Jump Over the Moon?

IT is no scientific secret, of course, that personality plays a tremendous part in the success of any person whose occupation requires him to meet people and get them to adopt his program: Likewise it is no secret that it is possible for one to improve his personality and its effectiveness. But the procedures suggested by these psychological hijackers have no more foundation in any scientific research than the belief that the cow jumped over the moon. Repeating nursery-rhymes, no matter what delightful fancies they suggest, will not establish or alter the well-established law of gravity, or transform laws of human behavior that come from the arduous labors of a procession of true scientists in the field of psychology.

It is known that personality can be resolved into units which we call traits and that these are made manifest by behavior patterns. The development of these traits becomes "tendencies to action." Some traits, of course, are shaped so that the individual is not as effective as he might be. Much can be done to direct the reshaping and alteration of these personality traits, but this is never done by the sleight-of-hand tricks or the nickel-in-the-slot methods. The methods of the itinerant "professors" and "personality psychologists" appeal only to the human desire of getting something for nothing.

Self Improvement Hard Work

THERE are, of course, many simple situations of personality maladjustments where common sense can supply the solution. From these we proceed to more complicated ones where the services of psychologists and psychiatrists are required. But

whether the personality adjustment be of more or less importance to the social and economic well-being of the individual, there can be no magical transformation. New mental habits require practice for their acquisition just as feats of physical skill require laborious repetitions of their performance, if perfection is to be attained. The young man who is lacking in self-confidence may secure help and inspiration from a talk, slogan card, or book, but in order to effect improvement the basic causes must be removed. Then there must be careful practice requiring sometimes painful effort before self-confidence can be permanently required.

While there are many phases of this problem which lie beyond the fringe of the scientist's knowledge, and a much larger area outside the laymen's ken, it is known that improvement in that complex of behavior, that mixture of mental and physical traits we call personality, must be accomplished largely through self-effort. A layman with common sense may help to call attention to defects and suggest remedies in minor cases but a trained psychologist is necessary in severe cases of maladjustment, and of course, can be of help to those who are still within the limits of the normal. But in no case is there any royal road.

Many of these psychological racketeers will protest that they prescribe personality development courses which must be followed out by the patient. But their advertising gives the lie to these protestations. The real tragedy in the situation lies in the fact that the helpful suggestions which they can give should be and in some cases are the stock in trade of successful teachers, parents and personnel men. If there are valid methods for personality improvement, then they should become the common property of all who deal with human relations.

What Psychology Holds

PSYCHOLOGY holds that the development of a wholesome and pleasing personality is in large part dependent upon environment. Some individuals succeed in rising above unfavorable conditions. Age is no serious handicap. The chief responsibility for personality development—except in abnormal cases—rests upon the home, the school, and the business institution. There was a time when the last of these three agencies would refuse to accept any share in this matter, but it is now generally appreciated that such responsibility cannot be dodged. In many cases the humanitarian view has doubtless been a factor, but it must be conceded that it is also good business to aid in the development of employees.

Many times we find that business and industrial institutions are the greatest offenders in enduring and even in encouraging the charlatans in this field. It is really quite easy to sell an otherwise astute business executive a gold brick of this kind. It seems that the bigger they are the harder they fall. Sometimes it may be due to a lazy man's attitude of getting someone else to do thinking which the executive should do for himself. More often it grows out of deep interest in em-

ployees and a sense of helplessness in meeting their personality problems. The psychological racketeer has even escaped federal legislation and control.

Looking to the Future

WHEN we come to the place that we shall understand that psychology like medicine can only make claims that are backed by years of careful research and study, then we shall have more patience with the development of this new science. With that understanding will also come, we hope, a willingness on the part of the public to wait for "tested results" and less of an urge to follow the fakir and charlatan. Wilhelm Wundt's laboratory for experimental psychology was opened in 1879 and that marks the beginning of scientific psychology. In the years that have followed much has been accomplished to put this young science on its feet. The racketeer may confuse the public and pick their pockets but he will soon have played his hour on the stage. He will go the way of the alchemists, the witch-burners, and the oriental swamis.

As home, school and industry become more alive to their responsibilities, and science pushes farther back the frontier of knowledge in this field, there will be less and less opportunity for the psychological racketeer. With his colleagues, the medical quack and the spiritual fakir, he will fold his tent and flit in search of more gullible victims, while his place is taken by parents, teachers, and business man, scientifically trained in the development of personality and better human relations.

This Subject is Likely to be Discussed as Long as the War Lasts, and Will Take Some Considerable Ironing Out of Inherent Difficulties. It Should Be Therefore Constantly Thought of by Industrial Relations Men in a Most Open Minded Way.

Union Participation *in* National Defense

Further Correspondence
THE PENNSYLVANIA COMPANY
Philadelphia

February 3, 1942

Dr. Charles S. Slocombe,
Editor,
Personnel Journal,
New York, N. Y.

Dear Dr. Slocombe,

I have just read the January *Journal* with great interest, particularly your letter answering Golden's letter. I can imagine you were "on the spot" in replying to his letter.

My own present view is that there is plenty of room for worker and union cooperation in management. I share some of the fears of conservative managements, however, that the ultimate intention of certain labor people such as Lewis and Reuther is to actually secure an effective control over business administration.

The dilemma seems to be that if you cooperate a little bit you'll have to cooperate the whole way and eventually lose control. I don't think this is a necessary sequence of events. You might see the opposite view something like this. If management refuses to permit the cooperation of labor, even a little bit, they will find themselves eventually in a position where they will have control taken from them. In other words, the intransigence of conservative management will almost certainly bring about the very thing which they most fear.

It seems to me there is plenty of room for a middle course in which management

deliberately cultivates the interest and assistance of labor, and particularly of organized labor, in dealing with all those aspects of management which concern the individual or which concern the mass of individuals. I do not see why this need extend to permitting unions to dictate merchandising policies or matters of that kind.

With best regards,

Sincerely yours,

EDWARD N. HAY
Personnel Officer

February 20, 1942

Dear Mr. Hay,

Thank you for your letter of February 3rd, dealing with the problem of union-management participation in the War effort. I think that this problem is going to stay with us as long as the war lasts. Eventually I think the President will find it necessary to formulate a national policy in the matter, for it vitally affects three important matters, worker efficiency, civilian morale, and making use of the best brains in the country.

You suggest that there might be found a middle course, in which I suppose the suitable areas of cooperation, participation or consultation would be marked out.

This seems to me to be entirely feasible, though I do not know how far it would satisfy some of the more ambitious labor leaders.

Canadian National Railway Plan

THE plan of the Canadian National Railways, the operation of which for the past fifteen years was described in the *Personnel Journal* of January 1941, seems to me to be about the best I have yet seen. The Railways have a collective bargaining agreement with the Brotherhoods, regarding wages hours, and working conditions.

But their cooperative plan is covered by an entirely separate agreement with the Brotherhoods, and defines and delimits the subjects to be dealt with in joint cooperative committees. I have followed the working of this plan for some years and as far as I know, while there have been heated discussions at times, there has been no basic disagreement.

The most important aspect of it seems to me to be the provision of machinery by which, in an atmosphere of non-contention, labor and management meet to discuss the problems of management in getting efficiency, the problems of workers in getting working conditions conducive to efficiency, and workers contributing such ideas as they may develop looking towards better and more efficient methods of work.

Requires Skillful Management

YOU may ask, how can the contentious collective bargaining attitude be excluded from the cooperative endeavor, and how can the information given out by the company in cooperative meetings be not used by the union to its advantage in collective bargaining? The only answer I can give is that this has been managed by the skillful handling of the whole matter by the labor leaders and the President and Personnel Manager of the Railways.

They have developed the plan, having courage and confidence in their ability to handle any awkward situations that might develop. And of course, they have found that few feared difficulties have actually cropped up.

In the relationship of the cooperative plan to collective bargaining, only on one occasion has there been any difficulty. It so happened one year that the collective bargaining negotiations over wages were unduly prolonged, and the annual review meeting of the cooperative plan (which always takes place *after* the new collective bargaining agreement is signed) had to be postponed, so that it would not be held while feeling was running high over the wage question.

I mention this incident to illustrate that you cannot operate a cooperative plan, without taking into consideration the possible influences upon it, which might break it down.

I am sure that, if you are interested, you can obtain from the Personnel Manager, Canadian National Railways, Montreal, Canada, a copy of their joint cooperative agreement.

English Works Councils

IN ENGLAND during this war, one of the new features which managements have to deal with is the "insistence by the government of the necessity of free consultation between management and employees on many subjects of common interest." Apparently the problems of worker efficiency and civilian morale prompted this policy by the Churchill government.

To implement this policy, many companies in England are setting up Works Councils to take care of matters which are not taken care of by the usual union set-up.

The first thing that has to be done is to clear the relationship with the union, to which the employees may belong. Generally it is agreed that the works council shall not discuss a question which is covered by an operative agreement between the company and the union, except with the written consent of the union concerned. Wage rates and other related subjects are also debarred from discussion in the works council. The works council is an advisory and consultative body only, except in such cases as special work is formally delegated to it.

Terms of Reference

THE next thing is to formulate terms of reference. These are to be clearly stated, and made known to all employees. As a guide, the following are set out as being the main objects of a works council:

- (a) To provide a direct channel of communication between the employees and the management.
- (b) To provide machinery for the joint consideration of such matters affecting the employees as may arise in the works.
- (c) To educate both management and employee members in appreciating the viewpoint of the other.
- (d) To provide means for constructive co-operation in obtaining greater efficiency and the contentment of those engaged in the factory.

The Duties of a Works Council

THESE will vary according to the type of firm in which the Council is established, but in general they can be summarised as follows:—

- (a) The consideration of matters affecting working conditions such as ventilation, lighting, humidity and temperature, washing and drinking facilities, lavatory accommodation, and so on.
- (b) The consideration of questions arising from accident prevention, protective clothing, first-aid, works cleanliness, health, time-keeping, production, annual and public holidays, and so on.
- (c) The consideration of how rules and regulations are to be interpreted and the maintenance of discipline.
- (d) The consideration of matters affecting the efficiency of the works.
- (e) The consideration of such difficulties, personal or otherwise, as may be referred to the Council.
- (f) The administration of such funds as may be established for the well-being of employees, e.g. a Benevolent Fund, Hospital Fund or, in war-time, Forces Comforts Fund.
- (g) The election of Sub-committees to deal with such matters as may come within the Council's province.
- (h) Consideration of such schemes that are necessary to meet war-time conditions for which joint consideration between management and employees is necessary in law, such as consultation for the purpose of setting up fire watching arrangements, A.R.P., etc.
- (i) To provide a medium for national propaganda on such subjects as National War Savings, Red Cross Penny-a-Week Fund, Health, Rationing, care of clothes, etc.

This seems to me to be tantamount to setting up a joint union-management committee to take care of essential matters of common interest that would otherwise be neglected, or improperly dealt with.

Whether American unions would consent to the setting up of such councils here is problematical. In one company, which has a closed shop agreement with the union, the union will not permit the company to form any organization or committee of employees—not even a glee club—on the theory that the management might use it as a means of taking away the loyalty of union members from the union.

Union Security

ANY form of cooperative machinery such as that on the Canadian National Railways, or the English Works Council plan is therefore possible in America, only if the union is satisfied that management is not going to use it as a means of undermining the union.

But I have not the slightest doubt that some form of worker management consultative or cooperative machinery is very necessary here, and will become increasingly necessary, to maintain worker efficiency and civilian morale. The delineation of the areas of joint effort, so that the fears of unions on the one hand, or managements on the other hand, are calmed and satisfied, should not prove an impossible job.

It must be done if we are to beat Hitler and the Japs.

These plans would seem to be adequate to take care of union-management cooperation within plants, particularly affecting worker efficiency and morale.

But they do not take care of labor leaders, and labor representation in determining matters of broad policy. Several things can be said about this.

Labor Leaders and Individual Companies

FIRST, as regards the individual company, labor leaders seem to feel that they could be helpful in increasing the efficiency of management. Part of my job is to interview top-management men, to get their views. One of the matters that always comes up is their discussion of the occasional weaknesses of their associates and subordinates in matters of recommendation, judgment and action, leading to less than full efficiency.

This state of affairs led me to advocate so strongly the Stanford study of Top-management in the January, 1942, Personnel Journal.

I can well see that it gives labor leaders grounds for criticising managements of individual companies. But what they do not seem to know is the fact that top-management executives are aware of this problem, and are constantly working to improve it. The injection of labor interference would, it seems to me, merely make the problems of solution more difficult. So this is one thing that labor leaders should leave alone.

As regards industry wide matters, which now come under the heading of national policies, leading to the winning of the war, the problem is different.

The Status of Mr. Reuther

MR. REUTHER put forward his plan for the conversion of the automobile industry some considerable time ago. It is now being accomplished, proving that Mr. Reuther was right in his contention that conversion was necessary. If he had the foresight and brains to think of this important matter, it seems to me that this qualifies him for an important position in a policy making agency.

The fact that he is a labor man, while it is in the picture, should not be a bar to such employment of him. We are going to need, before this war is over, every man of brains and ability in the country—and Mr. Reuther has demonstrated that he so qualifies.

The same is true of most present labor leaders. If you pause for a moment to make a job analysis of a labor leader's job, and the qualifications necessary to do it, you will quickly realize that it takes men of organizing ability, administrative capacity, courage and brains. In short they have executive abilities, equal to those possessed by our leading industrial executives.

The Place of Labor Leaders

THERE is therefore a *prima facie* case for using them to the full in appropriate positions, to aid in the prosecution of the war.

I say this in spite of the diatribes of Westbrook Pegler. He apparently cannot smell anything unless it is foul. For him there are no roses. So he has condemned himself to spend his life rooting around in the gutters of American life, nosing out the rankest morsels, and hawking them for a living. His views on labor, as expressed in his daily Amusement column, are therefore not to be taken seriously.

There would seem to me to be some truth in Mr. Thomas's (Auto Union President) statement that industrialists are somewhat hampered in their thinking about the necessities of the war situation by their concern over problems of finance, markets, and the effect of present decisions on the future of their companies. I would not regard this as a criticism, but as a realistic appraisal of the situation.

Labor Leaders as Free Thinkers

HE THINKS that union leaders are not so inhibited in their decisions by consideration of such matters. The injection of labor leaders, as free thinkers, into national policy making groups would therefore, according to him, tend to help in speeding up appropriate war action.

The automobile conversion problem is of course a very apt illustration. Auto manufacturers resisted conversion prior to Pearl Harbor because they saw the ramifications of finance, disturbance of car values, complete demoralization of their dealer outlets, etc.,—all the matters of widely distributed organization that they had built

up during the years. Naturally, they were very hesitant to smash all this, until really convinced of the absolute necessity of doing so.

However, the upshot of it is that we must go into active participation in resisting the spring offensive of Hitler and the Japs with one of our major industries virtually shut down.

If we survive this one, we cannot afford to repeat such slowed-down judgments in the future, if we are not to lose the war. If labor leaders can do anything to contribute to speeding up our war production, then they should certainly be placed in positions where their abilities will be used to the full.

Views of Labor Leaders

I FRANKLY cannot find, in the published statements of labor leaders, Lewis, Murray, Green, Meany, Tobin, Golden, Reuther, Bridges, or any other, indications that they desire to "actually secure an effective control over business administration." They certainly do desire that the government shall, but that is a trend that has been going on for over a hundred years, with or without labor advocacy. It will go on as long as there is business, so we do not have to debar labor leaders from responsible positions because they hold this view.

I did not feel that Mr. Golden put me "on the spot." The problem of using every available ounce of loyal brains in this country to win the war, whether it be black or white, labor or conservative, citizen or alien, is to my mind the most imperative consideration.

What I tried to do, in my reply to Mr. Golden, was to draw on my studies of union-management cooperation, and give him a steer as to the most effective ways in which labor could participate, with industry and government, in the war effort.

Yours etc.,

CHARLES S. SLOCOMBE.

When Mr. Churchill Was Over Here He Was a Little Cantankerous about Doing Anything about the Post-war World, and Dismissed It as that "Unattractive Jungle."

The Road We Are Travelling

BY STUART CHASE

Twentieth Century Fund,
New York, N. Y.

FULL employment of America's man power and material resources, now forced by the war, carried over into the peace would give this country the highest standard of living it has ever known.

This is the central forecast of the first of a series of exploratory reports on postwar problems made for The Twentieth Century Fund by Stuart Chase, and soon to be made public by the Fund.

In his first report, which he calls "The Road We Are Traveling," Mr. Chase finds that old restrictions of money and finance on the full use of men and materials are being swept aside all over the globe. "No nation in this dangerous world of 1942 is meekly going bankrupt because some textbooks say it ought to. It will go physically bankrupt when it runs out of food, coal, iron, oil, aluminum and not before."

Mr. Chase believes this new approach, which he finds growing out of fundamental changes that have been taking place in American life since 1914, will continue into the postwar era.

Money for Guns

CONGRESS," says Mr. Chase, "before the attack on Pearl Harbor, had already appropriated more than twice as much money for guns as the New Deal spent on butter, and other things, in eight years to 1940. It had appropriated more than for twice as much as was spent for guns in the last war, when we shipped two million men to France. Where is the money coming from? . . . In the old peacetime econ-

omy, such reckless outlays would have spelled bankruptcy and ruin. Money came first and men came second. In the new economy, no nation will permit bankruptcy and ruin so long as men, materials and energy are available. Men first, money second."

In announcing some advance conclusions from this report, Evans Clark, Executive Director of The Twentieth Century Fund, says, "The Fund is making a striking departure from its usual research procedure. To define and focus public attention on postwar problems, the Trustees of the Fund have underwritten an exploration of the future by a bold and speculative thinker. They have left him entirely free to reach his own conclusions, but have given him the benefit of Fund facilities and consultation with the Fund staff and leading authorities in many fields. The conclusions are those of Mr. Chase, and the Fund takes no stand, either for or against them.

Don't Be Afraid of the Post-War Period

THE public is too much afraid of the postwar period," said Mr. Clark. "That is because we haven't faced the issues and seen the challenge they make to courageous and imaginative effort to create a better life for everyone. The Fund hopes that Mr. Chase's striking and provocative prophecies will stimulate and vitalize public thinking. His first report will be followed by others which will give his views as to just what the chief problems are going to be 'WHEN THE WAR ENDS'."

Writing even before the President's last message to Congress, Mr. Chase finds that "about 10 per cent of our man power is in the army or making munitions. By the summer of 1942 it is estimated that the rate will have jumped to 27 per cent, with 15 million persons engaged in war work. In 1943, Mr. Roosevelt prophesies we shall spend half our national income for war. In October 1940, there were 204,000 workers in the aircraft industry, and for early 1942 the estimate is 859,000. . . . The Federal Power Commission estimates that power capacity will be stepped up from the present 42 million kilowatts to 64 million kilowatts by 1946. Private power plant capacity will increase by 40 per cent; public power by 100 per cent.

Physical Basis of Economics

THE new bomber program will carve out as big a section in the American economy as the whole automobile industry. This is only a starter. The new tank program will be as big as General Motors! The new shipbuilding program calls for shipyard capacity greater than that of the whole world in peace times!"

Drawing a lesson from this prodigious wartime production, Mr. Chase says: "As the American economy becomes increasingly distorted from its accustomed pattern under this shattering impact, a curious phenomenon emerges. All the wealth of Croesus will not buy a pound of aluminum when there is no aluminum available. Hitherto, one could always get what he wanted if he was prepared to

pay the price. From now on, price will become a *secondary* matter as commodity after commodity goes under priority and rationing control. The fundamental physical basis of all economic systems moves into clear perspective.

"For many years such perspective has been blurred by a capacity to produce far in excess of normal demand, with the result that people came to think that purchasing power, as expressed in terms of money, was the prime consideration. Now we are in a period where the amount of steel, copper, aluminum, raw silk, lead, zinc, kilowatts of energy, appear as the prime considerations—which, of course, they are, and always have been. In brief, we are in for a strong dose of physical economics, which promises to be very educational and not a little painful."

Mr. Chase vividly contrasts this full wartime production with the efforts of the New Deal to overcome the depression of the Thirties. "The New Deal got the economy moving forward again, but it did not solve the structural problem. As late as 1935 there were 51 million Americans drawing subsistence from government pay rolls—including local governments—and government relief. Up to that year, the depression had cost 50 million man-years of work lost through unemployment. . . . The New Deal stabilized unemployment at around 10 million, and the national income at 60 to 70 billion dollars, at a time when full employment would have produced a national income of 100 billions."

Two Men Do the Work of Three

OUR experience in the First World War is analyzed by Mr. Chase as a guide to changes that are now taking place during the present struggle. In 1918, he points out: "The War Industries Board in due course became the central planning agency for the whole American economy." This centralized effort, says the author, "made it possible to lift one third of the productive man power of the country into the army and munitions services, and to keep the remaining population fully and purposefully employed. . . . In brief, the Board so organized the national economy that two men did the work of three, and did it better. . . . The lesson lay there for all to see. The economy of abundance was swinging into focus."

After the present war, Mr. Chase believes, the full use of men and materials implied in the phrase "the economy of abundance" may very well continue right into the peace. It has taken the pressure of wartime production, he asserts in "The Road We Are Traveling," to get America back on the road to what he regards as the main goals in American life.

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With Twenty Million War Workers, Many of them Women, and Personnel Men Being Drafted, There is Likely to be Quite an Increase in the Number of Women Engaged in Personnel Work.

Women Personnel Executives

I. General

BY MARION E. OWENS

Stephens College,
Columbia, Mo.

THIS study of the duties, training, and education of women personnel executives in industry was undertaken for four reasons:

1. To provide data for management in the organization and development of personnel departments.
2. To provide specific information for women interested in industrial personnel work.
3. To secure information for educational guidance.
4. To obtain information for vocational guidance in secondary schools and colleges.

Scope of the Study

FIFTY-SEVEN woman personnel executives in 53 representative service, retail, and manufacturing concerns participated in the survey. Their contribution was supplemented by interviews and correspondence with ten men personnel executives and an interview with Mary Gilson, a pioneer in the industrial relations field.

The concerns that co-operated in the survey range in size from 300 to 63,000 employees with a median of 2,700 employees. The mean proportion of women in each concern to the total number employees in the individual companies is 41 per cent.

Two techniques, the questionnaire and the interview were employed in the following manner:

1. Questionnaires accompanied by personnel letters were mailed to firms outside the Chicago area.
2. Questionnaires were left during interviews with executives located in the Chicago area.

WOMEN PERSONNEL EXECUTIVES

Fifty-five or 85 per cent of the 65 questionnaires distributed directly to women personnel executives were answered, and replies were received from 20 or 100 per cent of those distributed during interviews. Fifty-seven or 75 per cent of the 76 (the total number) distributed to women personnel executives and to concerns were answered.

Status of the Women Personnel Executives

THE following data on the status of women personnel executives (Table 3) were compiled from replies of personnel executives:

1. Fourteen or 25 per cent of the women are the major personnel executives in the firms where they are employed.
2. Thirty-nine or 69 per cent identified themselves as the woman staff executive who has the major responsibility for the *initial* selection of employees (other than major executives), directs their welfare, and assists supervision in arriving at decisions relative to their retention or release by the company.
3. Twelve or 21 per cent are responsible for employing, advising and/or counseling women only.
4. Six or 10 per cent are responsible for training employees.

Guidance for Women Personnel Aspirants

THE women who wishes to become a personnel director should

1. Have some conception of the duties and responsibilities of a personnel worker (see Table 8) as governed by:
 - a. The type of organization she is considering—whether she prefers the type which thinks in terms of "profit" first and "the public" second (retail and manufacturing concerns) or the type which thinks in terms of "the public" more than "profit" (service organizations).
 - b. The type of worker with whom she will have to deal.
2. Select the field of specialization (training, employment, etc.) for which her interests, aptitudes, education and training best fit her and then point toward her goal.

Educational Background

THE average woman personnel executive in industry has had some university training in addition to her college work. Ninety-one per cent of the women had completed at least three years of college. The following data show the number of years of formal education had by each group:

Service organization.....	mean 16.3 yrs.	median 16 yrs.
Retail organization.....	mean 16.6 yrs.	median 17 yrs.
Manufacturing concern.....	mean 16.65 yrs.	median 16.25 yrs.

The fact that median for the formal education among these executives in the retail field is 17 years, and that 50 per cent of these women have degrees beyond a bachelor's degree, indicate that a great deal of significance has been attached to advanced study in this branch of industrial personnel work.

Minimum Educational Requirements

TWO personnel executives stated that the *minimum* educational requirements is a master's degree; 28 specified a bachelor's degree; 2 felt that 2 years of college would meet the *minimum* requirements; and 5 said "some college."

Thirty-two persons considered psychology essential; 32 persons considered personnel administration essential; and in addition to those who had had a course in labor relations, 13 who had not had such a course considered it essential.

Forty-four or 88 per cent believed that persons interested in personnel work should take courses in the personnel field. However, according to Miss Bloodworth, and the majority of the persons interviewed, the prospective personnel worker should have some experience handling people in business, education, or social work before specializing in personnel work.

Training of Personnel Executives

THE answers of the women indicated two things:

1. That the majority had received personnel training in the field of education
2. That World War I played an important part in developing personnel workers.

Unless the National Defense program catapults vast numbers of personnel workers to the top, the person who is entering the field will find that progress is slow. The mean is 17.65 years and the median is 17 years for the length of time the 57 women personnel executives have been employed. The mean of their present positions is 9.79 years; the median is 7 years.

Activities of Women Personnel Executives

THE executives emphasized the necessity of participating in extra-curricular activities in school and college for two reasons:

1. The contacts with the faculty.
2. Because participation in extra-curricular activities is a good personnel background.

The majority of office holders among the personnel executives had held student government offices.

Dramatics, public speaking, etc. and offices involving administrative responsibility were rated by the greatest number of persons as being the most valuable extra-curricular activities from the standpoint of personnel training.

A great variety of present interests were indicated by the replies of the women personnel executives. The variety of interests seem to show, as one woman said, "Some activities should be participated in, but it does not matter which." A number of persons said that there is always a danger of personnel executives attempting too much.

Selecting Subordinate Personnel Staff

THE three factors out of a possible seven (Table 16) which received the highest rating as factors taken into consideration in the selection of a personnel staff were (1) type and scope of education, (2) personality as revealed in interviews, and (3) aptitude for handling people as shown in social service, teaching etc. The fact that "aptitude for handling people" as shown in social service, teaching, etc. is recognized as the most important type of training for personnel workers by personnel executives would indicate that those occupations that require a social science background seem to fit the individual for personnel work.

Qualifications of a Personnel Worker

THE following are some of the specific qualifications that a prospective personnel worker is supposed to possess: She should be between the ages of 27 and 40. Because she can "get along with people," she should be able to "make humanity grow." She should have good health. She should have the courage of her convictions and yet be tactful. A sense of discrimination where people are concerned is essential. She must have executive ability. A personnel worker "must have a secretive nature—she must not discuss a fellow-worker's problems hither and yon."

Although few persons outside of the personnel field realize it, the personnel worker must have persistence—the ability to sell improvements to management.

Prospects for Women in Personnel Work

MOST of the women personnel executives were very optimistic about the prospect for the future of women in personnel work. However, most of the optimism can be traced to the National Defense program which the women expect to open up new personnel positions. There is a strong belief that there will be a need for women with specialized training to fill personnel positions. It is also apparent that most of the women are expecting the next ten years to determine whether or not women will hold more of the top ranking personnel positions than formerly.

Both men and women personnel executives realize that although, as this survey indicates, women are holding responsible positions in the personnel field, very few are officials of the company in which they hold executive positions (only 2 of the 57 executives are officials of the company which employs them. Tradition, wage-hour laws, and labor problems loom as important barriers to a woman's attaining a top ranking position.

Personalities

THE women personnel executives interviewed are an articulate group. Women personnel executives, more than most business women, are alert where social problems are concerned. Each one seems to take a sincere interest in people, and in the problems of her particular job.

Because of the pressure on the personnel departments during 1941, all of the executives must have been pressed for time. Nevertheless, each one managed to convey the impression that she had infinite time for "you."

Interest in the Subject of the Study

THE personnel executives' interest in the subject of this study and their willingness to co-operate in making the survey a success, is evidenced by the large number of returns received from the questionnaires. The executives felt that the subject of women in industrial personnel is a timely one because there is so little information on the subject available, and because they believed that information gathered from a survey of the field is needed by education groups and management.

II. Education

FOR the survey to be of any value from an educational guidance standpoint, it was necessary to inquire into the educational background of these business women and to further ascertain what they considered to be the minimum educational requirements of a woman personnel executive in industry. This was done.

Formal Education

IN THE questionnaire, the executives were requested to state the number of years they had attended a particular type of school and to check those schools or colleges from which they had graduated. Although three executives who had attended college reported that they had attended grammar school for only seven years (either because of acceleration or because of the type of school system), all figures are based on an eight year grammar school, since all had completed the work required for graduation from this level.

As there is a slight difference in the educational backgrounds of those who are in service organizations, retail concerns, and manufacturing concerns, the educational backgrounds of these persons have been grouped separately.

TABLE 1
DEGREES POSSESSED BY WOMEN PERSONNEL EXECUTIVES

DEGREES	NUMBER WHO POSSESS DEGREES		
	Service Organization	Retail	Manufacturing
Ph.D.....	1		1
M.D.....			1
A.B. and an M.A. or an equivalent degree.....		14	1
A.B., B.S., or B.B.A.....	6	12	5
No degree.....	2	3	8
Total.....	9	29	16

Length of Education

IN RETAIL organizations the range in formal education is from 10 to 18 years. The mean is 16.6 years and the median is 17 years. In service organizations the range is from 13 to 20 years. The mean for this group is 16.3, and the median is 16. In manufacturing concerns the range of the formal education of the women personnel executives is wider than in other groups—from 10 to 20.5 years, and the mean for these executives is slightly lower; it is 15.65. The median is 16.25.

These figures show that the average woman personnel executive in industry has had some university training in addition to her college education.

The number of degrees possessed by women in this field are indicated in Table 1.

When we consider the fact that only 50 per cent of the personnel executives in manufacturing concerns have college degrees, it would seem that those who have had little formal education have a better chance of reaching the top ranks in manufacturing concerns than in the other two fields of industrial personnel. However, it should be remembered that the women in this group who do not have college educations entered the field twenty or more years ago when personnel work was new, and when experience in handling people was the factor taken into consideration. It should also be noted that one woman in this group holds a Ph.D. degree. This woman is one of the most famous personnel executives in industry.

Table 1 also shows that there are a greater number of women personnel executives in retail organizations whose educational backgrounds cluster around graduate work below the doctoral level than in the other two types of organizations. Judging from these figures, graduate work seems particularly important in this field.

TABLE 2
EDUCATIONAL BACKGROUNDS OF ALL GROUPS

EXTENT OF EDUCATION	POSSESSING EDUCATIONAL BACKGROUND	
	Number	Per Cent
Ph.D. or M.D.....	3	5
A.B. or equivalent, plus M.A., B.S., etc.....	15	30
A.B. or equivalent.....	23	42
College (3-4+ years, no degree).....	8	14
No college.....	5	9
Total.....	54	100

Table 2 reveals the educational spread when all of the groups were combined. Ninety-one per cent of the women have had at least three years of college.

Special Schools

SURPRISINGLY enough only 14 personnel executives had had business school training. This training ranged from two months to two years. Two of the executives had had vocational school training. Ten of the twenty-nine in retail work had taken graduate work in a school of retail and merchandising.

All who did not attend college took some type of extension work. A few of the older ones had taken normal school courses. The majority of the women stressed that their education had been supplemented by a considerable amount of reading in the subjects that relate to the personnel field and that they frequently attend lectures.

Minimum Educational Requirements

THE replies tabulated in Table 3 were received in answer to the question, "What do you consider to be the minimum formal educational requirements for a woman who is a personnel executive?":

WOMEN PERSONNEL EXECUTIVES

In other words, 50 per cent of the executives consider a Bachelor's degree necessary.

One of the women supplemented her answer with the following statement:

Education on an advanced level is always desirable, but it is not essential. General personality factors are more important.

TABLE 3
MINIMUM EDUCATIONAL REQUIREMENTS FOR PERSONNEL WORKERS AS JUDGED BY WOMEN
PERSONNEL EXECUTIVES

EDUCATIONAL LEVEL	NUMBER CONSIDERING LEVEL ESSENTIAL
A Master's degree.....	2
A Bachelor's degree.....	28
Two or more years of college.....	2
It depends on the individual, but some college is necessary.....	5
High school education.....	2
No answer.....	18
Total.....	57

Another writes:

For persons entering the field today, at least a Bachelor's degree will be most helpful. But persons who are reasonably mature and who have had working experience, related or not, can acquire informally the knowledge and information which they find they need. This primarily will consist of labor legislation, labor relations, economics, and basic psychology. Persons with a little better than average intelligence can acquire such information through independent study and reading.

Another personnel executive made the following statement:

That (the minimum educational requirements) which makes her a well-rounded personality—understanding, sympathetic, but above all “common sensical.”

This same executive indicated, however, that courses such as psychology, sociology, and economics would be helpful in developing the person into a “well-rounded” individual.

Courses Related to Personnel Work

IN THE questionnaire the personnel executives were asked to check the “courses taken,” the “courses considered essential” to personnel work, and to list “additional courses” in the same manner. The replies to these questions are tabulated in Tables 4 and 5.

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One personnel executive emphasized the fact that anyone who is going into the training division in a retail organization would need in addition to the courses that are related to personnel work as such, courses like Textiles, History of Costume, History of Furniture, Color, Line, and Design.

TABLE 4
COURSES SPECIFICALLY RELATED TO PERSONNEL WORK

COURSES	NO. WHO HAVE TAKEN THESE COURSES	NO. CONSIDERING THESE COURSES ESSENTIAL TO PERSONNEL WORK
Psychology.....	39	32
Economics.....	30	23
Sociology.....	29	25
Personnel Administration.....	28	32
Public Speaking.....	26	24
Mental Hygiene.....	21	20
Tests and Measurements.....	21	19
Ethics.....	16	15
Statistics.....	14	18
Labor Relations.....	13	26
Law.....	5	2

TABLE 5
ADDITIONAL COURSES RELATED TO PERSONNEL WORK

COURSES	NO. WHO HAVE TAKEN THESE COURSES	NO. CONSIDERING THESE COURSES ESSENTIAL TO PERSONNEL WORK
Employment Administration Records and Procedures.....	2	5
Education courses.....	9	14
Philosophy.....	2	2
Business courses ("helpful in setting up office routine").....	14	1
Retail Organization and Administration.....	1	1
Journalism and other writing courses.....	1	7
Cultural courses.....	5	5
Vocational Counseling.....	2	6

It should be noted that:

- 7 persons took Psychology who did not consider it essential;
- 7 persons took Economics who did not consider it essential;
- 4 persons took Sociology who did not consider it essential;
- 2 persons took Public Speaking who did not consider it essential;
- 1 person took Mental Hygiene who did not consider it essential;
- 2 persons took Tests and Measurements who did not consider it essential;
- 1 person took Ethics who did not consider it essential;
- 3 persons took Law who did not consider it essential.

One reason that so little emphasis was placed on law is the fact that most large concerns have their own lawyer or staff of lawyers. Therefore, it is, in most instances, unnecessary for the woman to know law. However, she should be familiar with legislation which affects business.

- 13 who had not taken Labor Relations considered it essential;
- 4 who had not taken Statistics considered it essential;
- 4 who had not taken Personnel Administration considered it essential.

One should keep in mind that the "Additional Courses" were suggested by the executives themselves. Consequently, there is no way of making any real comparisons where these courses are concerned. It is quite probable that many executives who did not list specific courses might have had them. Of course, there is a strong likelihood that the executives would list those courses which they consider essential. So a little more weight can be given to the answers in the "Essential Courses" column than to those in the "Courses Taken" column.

Relation of Personnel to Personnel Work

IN reply to the question, "Should women interested in personnel work be encouraged to take courses in the personnel field?" 10 answered "No"; 44 answered "Yes"; and 3 did not reply. A few of the qualifying remarks were:

- "If qualified in other respects."
- "No. I believe in personnel choosing its workers and not in workers choosing Personnel."
- "Yes, if the individual has had psychology."
- "Actual Experience has education beaten a mile."
- "We, of course, expect persons working in this field of personnel to keep abreast of current practices, but we have never required any special training."

The director of training for a large organization, in outlining the personnel manager's job, made the following statement:

"For larger stores, the position requires specialized training and experience in handling retail personnel problems. The personnel manager should be a college graduate, preferably with additional specialized training in personnel."

To quote Miss Bloodworth on this subject:

A college degree with special study in psychology, sociology, and economics; additional graduate work in human relations, and a zeal for constant study in labor relations problems and labor legislation would give the possessor distinct preference when entering personnel work today.

It is my belief, however, and I find many other executives agree with me, that graduate work is often more effective after some business experience or while at work on the job.

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Although the personnel executives were not requested to list the schools and universities where they had had their personnel training, many volunteered the information. The schools and universities represented by these executives included those mentioned by Miss Bloodworth as institutions offering specialized training in personnel administration.

Miss Bloodworth is an officer of the Namm Department store in Brooklyn, New York, and is in charge of their personnel work.

Miss Bloodworth lists the following universities and schools: Boston; California; Chicago; Columbia; Harvard; Michigan; Minnesota; New York; Stanford; New York University School of Retailing; Prince School of Store Service Education of Simmons College; Radcliffe College; and the Retail Research Bureau of the University of Pittsburgh.

III. Training Experience

THE training and experience of women personnel executives is varied. Many industrial relations men interviewed maintained that the group of women personnel executives longest in the field would be former social service workers, and that those who had entered the field within the last fifteen years would be persons who had worked their way up in organizations. These opinions were not borne out by the survey.

Some who came into personnel work via social work are still among the best known, but many are no longer in the field. The educational background of the workers and their training as disclosed by the questionnaire and tabulated above do not substantiate the other claim.

TABLE 6

TYPES OF TRAINING	NUMBER OF PERSONS UTILIZING THESE TYPES OF TRAINING
Trained through educational personnel work (school teaching—21; adviser in a school or college, dean of women, etc.—10)	31
Trained through supervisory experience	27
Assigned to present duties without specific training in personnel work	16
Trained through a personnel apprenticeship course	13
Trained through customer contact	12
Trained through practical shop (factory, store, bank, etc.) experience	11
Trained through social service work	8

Major Types of Training Found in the Personnel Field

SOME other types of experience listed by the women included:

Hotel work

Newspaper reporting—valuable in public relations

Living with and raising a family

Office experience in an employment service. This developed into interviewing and placement work, supplemented by sales representative work, sales and some employment work in an exclusive shop, then interviewing, counseling, and placement of college trained women.

A further indication of the part that the World War played in the making of women personnel executives and the possibility of the present defense program for developing future executives, is brought out in sixteen per cent of the questionnaires. This is a remarkably high percentage when we consider the fact that many of the women now holding personnel positions were not old enough at the time of the last war to take advantage of the possibilities.

Other executives say in this connection:

My experience with the Y.W.C.A. at Great Lakes from 1917 to 1919 and with the Y.M.C.A. in the Army of Occupation in Germany from 1921 to 1923 was valuable.

Assignment to present work because of experience with Mary Gilson 25 years ago.

Interests, Aptitudes, Training and Duties

BOTH the men and the women in the personnel field who were interviewed, emphasized the fact that the young woman who is planning to become a personnel director must decide which branch of personnel work interests her most and which would be the best stepping stone to her goal. Naturally the young woman can expect advancement sooner if she goes into that division for which her interest, aptitudes, education, and training best fit her.

In their effort to simplify the connection between training and duties the personnel executives stressed: (1) The importance of a training supervisor's knowing all phases of the organization as well as having ability as a teacher and a counselor, (2) The need for the testing director's having a background of applied psychology, and (3) The importance of the employment manager's being capable of selecting the right man for the right job, interpreting tests, and making job analyses, etc.

Length of Training and Experience

IT HAS taken most of the women a considerable time to arrive at their present positions despite the fact that they are a well educated group.

The number of years the women were employed ranged from 4 to 35 years with a mean of 17.65 years and a median of 17 years. The number of years women were in their present position ranged from two months to 28 years with a mean of 9.79 years and a median of 7 years.

These figures seem to indicate that anyone who is looking for a position which will bring immediate success will not find it in the personnel field unless she is particularly unusual, or unless the national defense program opens up so many personnel positions for women that vast numbers of them will be catapulted to the top.

IV. Outside Activities

SINCE there is supposed to be a high correlation between participation in extra curriculum activities and success, and because it would seem, because of their profession, that industrial relations people, would, more than others, participate in school activities, it was decided to include this type of information in the survey.

The questionnaire listed eight activities and requested that those answering it check in one column the activities participated in and in another column those considered valuable in personnel training. Forty-one answered this part of the questionnaire. The answers will be found in Table 7.

TABLE 7
EXTRA-CURRICULUM ACTIVITIES PARTICIPATED IN BY WOMEN PERSONNEL EXECUTIVES

ACTIVITIES	NUMBER PARTICIPATING IN THE ACTIVITIES	NUMBER CONSIDERING THESE ACTIVITIES VALUABLE IN PERSONNEL TRAINING
Social sorority.....	32	18
Honorary fraternity.....	20	6
Dramatics, public speaking, etc.....	27	33
School publications.....	20	16
Musical.....	12	6
Athletics.....	32	11
Religious.....	16	9
Offices involving administrative responsibility, e.g., class, student government, club, etc.....	31	27

Participation Good Background

ANOTHER activity which was listed by seven persons was "working." Among the remarks made on extra-curriculum activities the following are the most interesting:

"Being on the national board of my sorority meant contacting college and university people and appearing before groups.

"Offices, sorority membership, and school publications are helpful.

"Participation and leadership in extra-curricular activities is a good personnel background.

"I do not think there is anything in this experience that does not contribute (or could not contribute) to the development of the personnel worker."

"Participation in extra-curricular activities means valuable contacts with the university faculty which help in business.

"It is helpful to have been active in some, but it does not matter which."

Six who belonged to sororities stated definitely that sororities did not help because they tended to make the individual snobbish. The majority of office holders had been officers of the student government associations.

Many of the older women explained that they had attended college prior to the time that emphasis began to be placed upon extra-curriculum activities.

It should be noted that religion seems to hold a relatively small place in the lives of the women personnel workers as indicated by the replies in Tables 7 and 8. One might expect that that women engaged in this class of work would place more emphasis on religion.

TABLE 8
ACTIVITIES OTHER THAN BUSINESS PARTICIPATED IN BY WOMEN PERSONNEL WORKERS

ACTIVITIES	NUMBER PARTICIPATING IN THE ACTIVITIES	NUMBER CONSIDERING THESE ACTIVITIES VALUABLE IN RELATION TO PERSONNEL WORK
Social activities.....	26	18
Service clubs.....	21	21
Church.....	18	15
Civic organizations.....	23	19
Professional organizations.....	31	31

Present activities other than business.—The women personnel executives were asked to check their present activities, other than business, participated in and those they consider valuable in relation to personnel work. Only five activities—see Table 8—were listed for checking. However, many activities were added by the persons answering the questionnaire.

Activities, other than those listed in Table 15 participated in by the women personnel workers are:

1. Bridge.....	10
2. Gardening and botanical research.....	4
3. Golf.....	18
4. Lectures.....	7
5. Little theater work.....	2
6. Music.....	12
7. Reading.....	7
8. Swimming.....	7
9. Theater.....	5
10. Travel.....	8

Some of the organizations wherein personnel executives are on the board of directors or hold offices are the Chicago Guidance Association, the Y.W.C.A., the Urban League (a Chicago Negro service organization), and the Junior League.

WOMEN PERSONNEL EXECUTIVES

One woman listed the following state activities engaged in by her—public employment as an officer, unemployment compensation, and the merit system examination.

The comments on present activities participated in include:

"Some activities. It does not matter which. But not too many. They are not to be used to influence particular hirings.

"With most people—there is the danger of attempting too much.

"Chamber of Commerce work is valuable in public relations.

"Church is valuable for personal reasons only.

A person engaged in personnel work quite naturally likes people and would be drawn into social clubs and church activities and would engage in athletic exercises. In order to be successful in a store such as this you must be a leader in the community and take part in the civic activities. That does not mean that a personnel worker should rush in and join all kinds of clubs. The writer is of the opinion that anyone engaged in a store should follow her natural inclinations to do what she desires to give complete relaxation. These activities, however, should not be done purely for commercial reasons.

V. Qualifications Needed

PERSONNEL executives were asked to number in the order of their importance seven possible factors taken into consideration in the selection of their staff. Space was provided for listing five other methods if they used other or additional means.

Of fifty-seven personnel executives answering the questionnaire, forty-seven replied to this question. These replies are listed and evaluated in Table 9.

Twenty-one gave "Type and scope of education" first place, and no one placed it seventh. Although "Personality as revealed in interviews" had only 18 first places, it had 12 second places as opposed to 5 for "Type and scope of education." It likewise had no rating of seventh.

TABLE 9
FACTORS TAKEN INTO CONSIDERATION BY PERSONNEL EXECUTIVES IN SELECTION OF STAFFS

FACTORS	SCORE
Type and scope of education.....	259
Personality as revealed in interviews.....	251
Aptitude for handling people as shown in other types of work such as social service, teaching, etc.....	205
Aptitude shown for personnel work in other departments of the company.....	166
Previous personnel experience with other concerns.....	107
Practical knowledge of the company's operations.....	137
Personality as revealed in personality tests.....	69

Note. A weight of 7 was given to every factor that was given a first place, a 6 was given to all factors rated second, a 5 was given for third place, etc.

Education and Social Service Best

APPARENTLY those personnel workers who had been recruited from the fields of education and social service had found their experience in handling people in these fields particularly valuable in personnel work. These types of training received, it will be noted, the highest rating of any training.

No one rated personality tests first. Surprisingly enough, three persons gave it a second rating.

The only comment made by those questioned on this subject was one made by an employment manager:

"Aptitude shown for personnel work in other departments is a desirable indicator—but it cannot be depended upon at all times."

The industrial relations executives interviewed were of the opinion that the incumbent for the position of personnel manager should be between the ages of twenty-seven and forty.

Personnel managers feel, that the individual who goes into personnel work should have some experience in dealing with people prior to directly entering the field and prior to extended specialized study in the field. There was one exception to this view. A woman executive maintained that it is better to complete one's education before entering any special work. To make practical experience truly meaningful one must necessarily have had the theory at a previous time. This "gestaltist," however, had had experience as a punch board operator and had done work in selling, before she had completed her education.

Personal Qualifications

ONE of the first qualifications that the would-be personnel worker thinks of as fitting her for personnel work is "the ability to get along with people." Unquestionably this is absolutely essential. But, this is not enough. Two comments refuting the popular conception that this is sufficient are:

Getting along with people as a qualification of the personnel worker is a constructive and positive quality. It means having the ability to guide, counsel, and suggest. There can be stratification in mere liking people. Liking people in personnel work means not only an interest in humanity but also the ability to make humanity grow.

Personnel workers must be physically healthy so that they will have the strength and industry to attend to their work and master vexacious questions and conditions.

The manager of personnel in a large West Coast concern stressed qualifications spoken of repeatedly by others:

She [the personnel worker] must naturally be observing and thoughtful. She should have a good memory for names and faces; she should have personal charm; and she must have the courage of her convictions. In other words, she must be able to select what course to pursue and then pursue it.

Executive Ability

THE personnel manager must be able to select employees suitable to the specific purposes of the company. The employment manager of a bank must select a different type of employee from the employment executive in a factory. Similarly, the executive must discriminate between the demands of different departments. Therefore, she must be a good judge of ability and be capable of evaluating experience.

One of the most important qualifications is executive ability.

She must be able to plan, organize, install, conduct, and follow up training work; she should have the ability to delegate responsibility and assist others to carry out planned sales promotions, able to show

sales people how to sell, and to show non-selling personnel how to perform their chief responsibilities. She should be operating minded, familiar with store handlings, procedures, objectives and expenses.

All personnel executives have emphasized the necessity of the personnel executive's possessing tact and sympathy. To quote a man who is a personnel director of a large Chicago firm:

The personnel manager must be accessible. She cannot insist upon office hours. She should be willing to accept interruptions without being irritated. But, on the other hand, she should illustrate efficiency by knowing how to organize her time.

The personnel manager should keep her eyes open as conditions change and interpret the changes through actual contacts. As one personnel executive of a large manufacturing concern put it: "The personnel executive should sell improvements to management." In this connection persistence is absolutely essential to a successful career in personnel work because personnel work means hammering through one line to another. "It means doggedness to get something across."

The Zip of Creation

A PERSONNEL worker who had worked with Jane Addams and who had lived at Hull House continued to say that women in this field should have the "zip of creation"—they should have the ability to create a new pattern from opposing ideas such as labor vs. capital. Because in a compromise both sides feel as though they have lost, she should endeavor to create a new pattern that will satisfy both groups—a pattern in which both sides feel the thrill of victory.

In discussing the qualifications of a women personnel executive, Miss Bloodworth has emphasized the need of having a good business sense—a realization that the primary object of business is to make a profit and to build on organization. This emphasis is clearly understood. Although the personnel manager must think largely of the employment situation and the employee over a long period (as contrasted with production's short view of the situation) she must also think in terms of production now. The personnel department must justify its existence.

In Hiring a Worker, Who May Become a Permanent Employee of the Company, It is As Important to Know His Reasons for Seeking the Job with the Company, and His Basic Drives, as It Is to Know His Education and Ability.

The Drives of Workers

BY HAROLD A. WREN

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WHAT are the forces behind an individual's vocational choice? Why do workers strive to advance upward on the occupational ladder? Is their ambition spurred on by a desire for higher income, increased power, or prestige? Are young men more ambitious than older workers? Are only the aggressive desirous of promotion? Are more intelligent workers anxious to desert the occupational status which they hold?

Every personnel worker has formulated opinions answering these and similar questions. These answers, whether consciously expressed or not, are part of the total background upon which decisions regarding personnel changes depend. With the hope of finding statistically justifiable answers to the above and similar questions, the following research was undertaken.

How Ambition Is Sustained

IT WOULD seem from the investigation that an individual is motivated toward a vocational goal not only by his previous achievement (vocational status level), and the pressures of his immediate social environment (familial occupations), but also to exercise those capabilities that he believes he possesses, and to secure the rewards that will accrue to him when the new goal has been achieved. These rewards, whether power, prestige, income, or any other value important to the worker, are an ever-shining goal that sustains ambition throughout life.

Aspirations as an aspect of personality are thus an expression of intrinsic urgings in the directions of those values, not only connected with accomplishments

and pressures in the social scene, but also directed toward an unfolding or emerging development of the personality picture of the individual. This unfolding process is implied in the desire to bring into play potentialities on a new level, as well as to capture the concomitants which the new level affords.

Forces Behind Vocational Goals

PERSONNEL workers in dealing with individuals should recognize forces behind vocational goals. Goals do not just happen, they are formulated against a background of values and cherished as an aspect of personality. They are part of the personality picture in which the adjustment of the worker is focussed. Thus, a program wherein the worker has an opportunity to assay his capabilities is an essential part of desirable personnel procedure. Utilizing a worker's capacities and aiding him to reconcile his values to reality will succeed in making him not only a better-adjusted worker, but also a more consciously complete member of society.

It was the belief of the investigator that it would be possible to determine the factors behind the vocational ambitions of workers by making an analysis of the characteristics of workers on each occupational level, and comparing the findings with the same characteristics displayed by those who aspire to the occupational levels. For example, if among machinists in a shop there is a real difference in intelligence between those who wish to be shop foremen and those who are satisfied to remain machinists, it would be possible to say, other things being equal, that intelligence is one of the factors that determine the ambitions of machinists.

Where a real difference between occupational status and ambition appears with respect to intelligence, or other given characteristics, that attribute is identified as part of the total personality picture of those workers who aspire to the different occupational levels, and contributes to the establishment of the occupational ambition.

Workers Who Ask for Advice

WITH the above procedure in mind, the complete case records of 871 adult applicants for advice as to the best vocation they should spend the rest of their working lives in, were selected for study.

The case records of the workers revealed significant data, as well as their occupational status and vocational ambitions. An attempt was made to select for analysis such range of occupations as would be wide and representative of each occupational level. Ninety-five different occupations were included in the sample studied.

THE DRIVES OF WORKERS

Using Beckman's Occupational Classification as a measuring instrument, it was found that the workers were distributed as follows:

DISTRIBUTION ACCORDING TO OCCUPATIONAL LEVELS

OCCUPATIONAL STATUS LEVEL	DESCRIPTION	NUMBER OF WORKERS
V	Professional Occupations (Linguistic, Scientific, Managerial and Executive).....	117
IV	Sub-professional, Business, and Minor Supervisory Occupations..	154
III	Skilled White Collar Occupations.....	269
IIIb	Skilled Manual Occupations.....	73
II	Semi-skilled Occupations.....	116
I	Unskilled Manual Occupations.....	142
Total....		871

Whenever any characteristic was considered likely to affect occupational status or ambition, an analysis of such characteristic was made among individuals on these occupational levels. The factors studied were as follows:

- I. Personal
 - a. age
 - b. marital status and dependents
 - c. employment stability
 - d. social dominance
- II. Family occupation pattern
 - a. father's occupation
 - b. siblings' occupations
 - c. the most frequent family occupation
- III. Abilities as shown by objective tests
 - a. classification (intelligence)
 - b. vocabulary
 - c. clerical names
 - d. clerical numbers
 - e. art judgment
 - f. finger dexterity
 - g. tweezer dexterity
 - h. mechanical assembly
- IV. Education
 - a. the number of years of formal schooling
 - b. the type of education
 - c. the length of supplementary education
- V. Income—the highest weekly wage received

The workers on each occupational level were compared with those who aspired to the same occupational level, in respect to the characteristics which identified each level, and the following conclusions were drawn:

Individuals are generally desirous of deserting lower for higher occupational

ranks. Seventy-two per cent of the group sought occupational levels higher than those which they held, twenty-six per cent were willing to remain on the same occupational status level, and two per cent chose occupations below their status positions.

Workers Try to Raise Occupational Level

AS THE level of occupational status rises, the level of vocational aspiration ascends the occupational scale. The aspirants to the professional level (V) had an average status level of 2.68 (just below level III); while those who wished to gain the sub-professional, business and minor supervisory level (IV) had an average occupational status level of 2.53. The workers seeking the skilled level (III) were more than a full status level below the preceding group. Those aspiring to the skilled white collar level had an average status level of 1.43, while the skilled manual attracted those with an average status level of 1.70. Those who indicate a preference for the semiskilled level (II) were from the unskilled group (I). The level of vocational aspiration is related to:

Social Dominance as a Personal Characteristic

DOMINANCE scores increase with a rise in occupational status level and there was a similar ascending scale of dominance among the aspirants to the increasingly higher levels. Not only do the more dominant hold the higher occupational levels, but also do the more dominant seek to reach those levels.

The Family Occupational Pattern

THIS is judged by the occupation of the father and other members of the family. There was a closer relationship between the status occupations of sons and fathers than between sons' ambitions and fathers' occupations. The sons seem to be occupationally higher but as yet closer to their fathers' occupational level than they wish to be. At the same time there was an increase in the occupational ambition levels of the sons with a rise in parental occupational status level.

The status of the frequent family occupation bears a similar relationship to the workers' status and ambition levels, as does the father occupational level.

The Abilities of Individuals

WHEN an ability such as mental alertness is common in varying amounts on all occupational levels, vocational status rises with the demand for an increase in the amount of the ability. For example, the level of intelligence and size of vocabulary rises with the occupational status level. There is a parallel rise in the occupational aspiration level with higher scores in those abilities.

When an ability is identified with a specific vocational level, such as clerical ability with the white-collar level, the tests for those abilities showed higher

average scores for workers on that status level than for clients employed on other levels. On the other hand, the skilled white-collar occupations did not attract exclusively those individuals possessing the highest degree of clerical abilities: they aspired also to the professional and sub-professional occupations. A noteworthy absence of clerical abilities was found in individuals who sought the skilled manual occupations.

Similarly, the mechanical assembly test disclosed a lack of this ability in those who aspired to the skilled white-collar occupations. The workers who preferred skilled manual, professional and sub-professional occupations were superior to the other workers in respect to the mechanical ability measured by this test.

It might be emphasized again that when an ability is arrayed throughout all vocational levels in ascending order, a rise in vocational aspiration levels is associated with an increase in the average test scores. When specific abilities are required, workers tend to avoid the occupational levels which demand specific abilities they do not possess.

The Amount of Education

THERE was a rise in occupational status with an increase in the average length of formal schooling, and the amount of schooling increases with a rise in the occupational aspiration level of the group. This association of length of formal education with the level of vocational aspiration is more than incidental: their interdependence is obvious.

Earned Income

THERE was a higher average income with a rise in occupational status level. Present earned income does not seem to decide the level of occupation aspiration, although the aspirants to each level were significantly lower paid than the status group. There seems to be a tendency, however, for the higher paid portion of each occupational status level to remain on the same status level, while the lower paid portion aspired to levels where the average income is higher than that which they earned.

Type of Education

THERE was a strong inclination for individuals with professional training (teaching, engineering, etc.) to seek to desert any temporary position on a lower occupational level for professional and sub-professional openings. While the same trend toward the higher levels is also true of workers with other types of training, (e.g., business-commercial or industrial-trades) a greater proportion of their numbers seek occupations on the levels for which they are trained.

At the same time, there is a diminishing proportion of workers with general academic training in each higher ambition group, which seems to associate lack

of specific training with the lower occupational levels. It might be said that individuals tend to seek occupations for which they are trained, and that the lack of specific training considerably modifies the level of ambition.

Above are outlined the factors which seem to determine vocational aspiration. Below we list those factors which do not seem to have any effect on it.

Chronological Age

INCREASING age seems to be reflected in a higher status level, but ambition to advance remains constant throughout employment careers.

Marital Status and Number of Dependents

A GREATER proportion of men who were married and supported dependents were found in the higher ranking occupations; and single men without dependents were as yet aspirants to these occupations. The average ambition level did not differ to any great extent when the single and married man on each status level were compared. Contrary to popular opinion it cannot be said that marriage and dependency acts as a spur to ambition.

Employment Stability

NO EVIDENCE was found to support the contention that employment stability affected vocational status or occupational ambition.

The Occupations of Siblings

A SIBLING is a relative, such as a brother or sister. The relative position of the occupations of siblings were studied in their relationships to the occupational status and ambition levels of the workers. Only the skilled level (III) showed a high consistency (57.7 per cent) in that the occupations of workers and siblings were on the same level. The average occupational ambition level does not seem to vary with the relative status of the siblings.

Abilities Not Related to Occupational Levels

THE finger dexterity and tweezer dexterity tests disclosed widespread scattering of the power measured on all status levels, and no differences among the levels could be noted; the same fact was found to be true with references to the occupational ambition levels.

Length of Supplementary Education

THE length of supplementary education identified neither the occupational status nor the ambition levels. Supplementary education seems to depend upon factors other than the status that an individual holds or the vocational level to which he aspires. The drive of ambition does not seem to be reflected in the effort to secure supplementary education.

The aspirants to each occupational level were significantly inferior to the status workers on the levels to which they aspired in respect to many characteristics: age, dominance, classification, art judgment, mechanical assembly, education, and income. It would be difficult, at the same time, to say that such deficiencies precluded the possibilities of success in the occupations aspired to, since the degree of success in any occupation depends upon the criteria of success which are established.

Basis of Aspirations

IT WOULD appear that there are differences in individuals who aspire to the different occupational levels. It might be said that the level of vocational accomplishment, dominance as a personal characteristic, familial occupations, abilities, education and income form a pattern upon which the drive to achieve a vocational aspiration depends, when these characteristics are a part or aspect of the goal aspired to, or lie within the social environment and intrinsic makeup of the individual.

Other characteristics, unrelated to the level of vocational aspiration, or external to the individual and his social environment seem not to affect the vocational goal: age, marital status, employment stability, the relative positions of siblings' occupations, abilities not identified with the goal, and the length of supplementary education. That other factors may contribute to the field of forces affecting the vocational goal is readily admissible, when it is considered that the vocational goal itself is one of a set of values by which an individual gives meaning to his life.

We Commonly Think of All Americans as Being People with a Strong Desire to Get Ahead, Ambitious, Striving for Jobs Carrying Increased Responsibility and Power. But That Does Not Seem to Be True of All of Us.

Characteristics of Good Clerks

BY ARTHUR F. DODGE

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IT is a common impression that the typical clerical worker is radically different from the typical salesman. The salesman is frequently represented as fat, jovial, aggressive, and self-sufficient, while the clerical worker is frequently represented as frail, stoop-shouldered, timid, and non-social. A recent study of personality traits throws some light on the truth of this common impression.

In studying the traits of clerical workers, eight groups from four different business organizations (a total of 192 clerical workers) were asked to fill out a personality questionnaire. This questionnaire asks the individual to state, by checking yes or no, how he feels or acts under certain situations.

Good Clerks Don't Like Responsibility

SUPERVISORS of each group were asked to rate the efficiency of each individual worker. Then on the basis of these ratings the total group of 192 individuals was divided into two groups, one of the better or more efficient clerical workers and the other of the poorer or less efficient workers.

Each question in the personality questionnaire was then checked to find those questions which the better or higher-rated workers tended to answer differently from the poorer or lower-rated individuals. When such questions were found, it was assumed that the answers given more frequently by the better workers than by the poorer workers indicated traits which contribute to the occupational success of clerical workers.

A total of 39 such questions were found. Five of these indicated that successful clerical workers are less ready to accept responsibility than are poorer or less successful workers. A typical question, "Do you prefer to assume entire responsibility

in a given situation rather than share such responsibility with another," was answered "No" by 72% of the more successful clerical workers, while only 57% of the less successful workers gave this answer.

They Have Difficulty Making Friends

FIVE questions indicated that successful clerical workers are less social or more ill at ease under social contacts than are the poorer workers. One of these questions, "Do you find it easy to make new friends," was answered "No" by 24% of the more successful workers, whereas, only 14% of the poorer workers gave this answer.

Nine questions indicated that the more successful clerical workers are less self-sufficient and more dependent upon others than are the less successful workers. One of these questions, "Had you rather be alone when under emotional strain," was answered "No" by 23% of the better workers, while only 11% of the poorer workers made this answer.

Thus, the successful clerical worker seems to be less ready to assume responsibility, less at ease in social contacts, and more dependent upon others than the less successful worker. At first, it seems strange that such negative traits should be associated with success in any occupation, but isn't it possible that a social individual might find it difficult to stick to a routine task without frequently visiting with his neighbor, or that a self-sufficient individual or one wishing to accept responsibility might chafe at a routine task or even cause trouble by assuming responsibility on a job where routine must be followed without deviation?

Comparison with Salespeople

IN AN earlier similar study of salespersonality, the writer found that the successful salesperson is social, self-sufficient, and willing to assume responsibility—exactly opposite in these traits from the successful clerical worker. These findings seem to confirm the common belief that the typical salesperson and the typical clerical worker are almost opposite types.

This tendency for successful clerical workers to possess traits opposite in nature to the traits characteristic of successful salespeople is confirmed by a more recent study by an insurance company. Groups of workers were selected from four typical clerical jobs: file clerks, posters, checkers, and correspondents. Approximately half of each of these four groups were highly efficient workers, while the other half were workers of low efficiency. All the individuals in these groups were asked to fill out a personality inventory designed to measure the extent to which an individual's personality is similar to that of a typical successful salesperson.

Good Clerks Are Poor Salesmen

IN EACH of these groups it was found that the successful clerical workers tended to possess personality traits characteristic of the unsuccessful salesperson.

When all four of these groups were considered as a single group it was found that 57% of the *poorer* clerical workers obtained *salespersonality* scores higher than the average for salespeople and indicating a personality similar to that of the typical successful salesperson, while on the other hand 72% of the better clerical workers obtained scores *below* this average, thus indicating a personality opposite in nature to that of the successful salesperson.

It is interesting to study other personality inventories to note the extent to which their authors acknowledge the negative traits of dependence upon others, unwillingness to assume responsibility and lack of composure in social contacts, as being desirable traits for clerical workers. The author of the Cleeton Vocational Interest Inventory apparently does not recognize this possibility, although the manual for this inventory suggests that individuals with non-social traits should seek an occupation where these traits are less essential, such as occupations "requiring the manipulation of words, numbers and objects and avoiding those occupations requiring extensive social contacts."

Professor Strong's Findings

HOWEVER, the Strong Vocational Interest Blank in its scoring key for office workers (men) shows general agreement with our findings. According to this scoring key the successful office worker (1) does not usually start activities of his group, (2) does not win friends easily, (3) has less than an average share of novel ideas, and (4) dislikes public speaking.

Only one item in the Strong Inventory seems in disagreement with our findings. According to Strong's scoring key, the successful office worker likes to assume responsibility. It should be noted, however, that the group of 326 office workers, which Strong used as a standard in developing the scoring key, included 92 office managers and 20 credit managers. It is possible that if Strong had eliminated the office managers from this group he would have found that the typical successful office worker *dislikes* to assume responsibility.

Hire Unassuming Bashful Clerks

IF FURTHER studies confirm the above findings, there appear to be certain implications which should be considered by those responsible for selecting clerical workers. Certainly the traits found by this study to be characteristic of the successful clerical workers (a dislike to assume responsibility, a dependence upon others, and a tendency to be ill at ease in social contacts) are not traits which will tend to make a favorable impression upon an interviewer. For this reason, should not the official responsible for selecting prospective clerical workers be skeptical of the individual who puts up a good "front" and look with more favor upon the unassuming bashful individual?

CHARACTERISTICS OF GOOD CLERKS

Other writings of the author on this subject are contained in the Journal of Applied Psychology, as follows:

What Are the Personality Traits of the Successful Sales-Person? Journal of Applied Psychology. June, 1938.

Dodge, Arthur F. What Are the Personality Traits of the Successful Clerical Worker? The Journal of Applied Psychology. October, 1940.

Worker Analysis is Concerned with the Study of the Knowledge and Abilities Required of Workers in Various Occupations, and the Development of Means of Estimating or Measuring These Characteristics. The Development of Job Families Involves the Grouping of Occupations with Common Job Needs.

Fitting Workers to Jobs

BY CARROLL L. SHARTLE

Social Security Board,
Washington, D. C.

IN THE present war program, there has been a real emphasis on the development of certain materials needed for immediate application in the recruitment of workers. In speaking of our work in the preparation of occupational information, I may mention the occupational composition studies which we are making. These studies are being used widely over the country as an aid in outlining labor requirements, and in planning the selection and training of workers for new war industries as they are established in various communities.

Jobs Important to Each Industry

AN OCCUPATIONAL composition study is a pattern of jobs which are important to a particular industry, or to the manufacture of a particular product. The pattern shows in terms of our standard Job Dictionary titles, the names of the occupations which are involved in the industrial process, and also the percentage of workers required for each classification by department and by total plant.

In addition, the composition study contains certain information regarding the personnel requirements of the jobs in which hiring is to be done; the trade tests, aptitude tests, and occupational information materials such as job descriptions or job families which we have developed for the use of Employment Service offices as aids in the selection of workers for these jobs; and indications of the suitability of the jobs for the employment of women.

Many of the occupational composition studies we have prepared to date are based upon studies we have made in various arsenals and ordnance works. These studies serve a definite need for information which is being experienced by localities

where new arsenals and ordnance plants are being built. The manning of these plants which will manufacture munitions and other war materials is a problem in which our composition studies are assisting materially. For example, suppose that in a midwestern town a plant is being built for the loading of shells of a particular type and caliber. No such plant has ever before been in operation in this locality.

Workers Needed for New Plant

OUR occupational composition study prepared in one of the arsenals gives the pattern of jobs which will be required in the plant. The study thus serves as an aid in determining what types of workers will be needed for the new plant, what pre-employment training may be required to make qualified workers available as soon as the plant is in operation, and what selection techniques may be applied in choosing workers who will make rapid adjustments to work in the war-production plant. Training and recruiting procedures can be planned by the community, therefore, long before the plant is completed—an important factor in speeding up the war production program.

We plan to make many more of these occupational composition studies for important war industries, and later on we hope that similar studies can be made for important processes in peace-time industries. Thus, when post-war employment planning is undertaken, we expect to have available data which can be used in comparing jobs in war industries with those in peace industries. Such information should be useful in providing for post-war occupational adjustment.

Selection of Learners

ANOTHER aspect of our work which has moved ahead rapidly during the past year, and especially the last few months, has been the development of new testing procedures as a part of our worker analysis activity. This development and application of new techniques has been aimed especially at the selection of learners for such important war jobs as are found in machine shop work, sheet metal work, and aircraft manufacture. To date 145 batteries of aptitude tests have been developed.

Our point of view in the aptitude testing program is to develop testing devices directly related to actual job performance. In recruiting workers for industries, our test batteries are used by employment offices all over the country as final selection devices.

Initial selection of workers for placement is made on the basis of job specifications supplied by the employers. This is followed by the administration of the aptitude-test battery for the particular job, and then final selection is made. Thus, only persons who have otherwise met the requirements of the job are tested for a specific opening. This procedure for the reduction of testing time is made necessary

by the urgency of all selection and placement in war industries. In these days the application of all occupational analysis materials must be carefully geared to the rapidity with which industry is expanding, and the high speed at which industry is operating.

Relation to Post-War Employment

IN ALL of the work of the Section we are not unmindful, however, of post-war problems. Just as our plans for the preparation of occupational composition studies include the collection of data useful in post-war adjustment, so our testing techniques are being evaluated in a vocational guidance service, and adaptations are being made for their use in longer range guidance and counseling. It is anticipated that the present application of test batteries in selection for specific occupations will be broadened.

In the future they will be interpreted not only for use in referrals to job openings, but also for use in the determination of aptitude for more general fields of training or work. At present, aptitude-test batteries are in use in 286 offices of the U. S. Employment Service; trade tests are in use in 936 offices.

Job Dictionary

OCCUPATIONAL composition studies, aptitude-test batteries, and trade tests are not available for general distribution. However, we have three recent publications, which are or will soon be available to everyone through the Superintendent of Documents, and should be of particular interest to personnel men. A Part IV has been added to our *Dictionary of Occupational Titles*. Part IV deals with the classification and referral of applicants who have not had specific job experience. We have called this volume the "Entry-Occupational Classification" and it is being introduced as standard classification procedure in all offices of the U. S. Employment Service. The classification structure in Part IV is in preliminary form, but refinements are being made as rapidly as possible.

Our second recent publication is the *Dictionary of Occupational Titles Supplement*, which contains the definitions and code designations for 1,600 occupations not included in the original volumes. The Supplement is a loose-leaf volume, and it will be possible for new definitions and classifications to be added as they are discovered throughout the country. Unfortunately the Supplement is at present available only to the offices of the U. S. Employment Service, because of limited printing.

Jobs for Women

THE third publication is a list of occupations suitable for women. It is now in preparation and will soon be available from the Superintendent of Documents. This list of occupations for women contains approximately 3,000 job titles for im-

portant war jobs. Each job is classified according to its apparent degree of suitability for the employment of women, the estimated training time that would be required, and the industries in which the job is found.

The volume also contains a list of 950 jobs in non-defense work in which women might be employed; an index indicates their apparent degree of suitability for women workers. These 950 occupations were included in the publication for the purpose of suggesting occupations which women might enter so that men might be transferred to war industries, or released for service in the armed forces.

There are many other kinds of occupational analysis materials currently being developed by the Occupational Analysis Section, and being put into use by the offices of the U. S. Employment Service. These materials include job analysis studies of occupations in the armed forces, new volumes of job descriptions for selected industries, studies of the physical demands of jobs and their suitability for handicapped persons, and many special studies too numerous to mention. I should like to mention also the far-reaching training of Employment Service interviewers and counselors in job-analysis techniques which is being carried out by the staff of the Section. We are spreading the gospel that valid occupational information and sound classification and placement work can be based only upon job analysis through observation.

Job Families

ONE of our chief contributions to occupational research I have only touched upon briefly. That one is the development and application of Job Families in the problems of labor recruitment for war jobs and the adjustment of labor from peace-time work to war production.

Research in occupations has been a part of the U. S. Employment Service program since 1934. The developmental work in occupational research, as carried on by the Occupational Analysis Section, has been and still is mainly in the following three fields: (1) Occupational Classification; (2) Occupational Information; and (3) Worker Analysis.

Occupational Classification

WE ESTIMATE that there are 30,000 separate jobs or occupations in this country, including jobs in the armed forces. The task of dealing with such a large number of occupations requires their classification according to a systematic scheme. Such a classification has been set up in the *Dictionary of Occupational Titles*. This publication also includes the definition for each occupational title. The code structure used in the Dictionary, and the standard identification and naming of jobs presented in it, are the basis of all employment office classification and reporting. This official classification structure stems from the Convertibility List of Occupations, developed by a committee on classification composed of representatives from

interested government agencies and the American Statistical Association. It is therefore possible, by the use of a conversion table, to interpret data reported according to the Dictionary classification into the census classification and vice-versa.

Occupational Information

THE Occupational Analysis Section of the U. S. Employment Service obtains occupational information through job analysis procedures. This involves the direct observation of jobs by trained analysts. From their recorded observations are prepared job definitions, job descriptions, occupational and industrial monographs, occupational composition studies, special lists of occupations suitable for particular groups of workers (such as lists of occupations for women), and also answers to hundreds of requests for information about specific jobs in industry received from offices of the U. S. Employment Service throughout the country, from the War Production Board, and from other government agencies, employers, unions, schools, and even from individual citizens.

Over the past six years a reservoir of over 70,000 job analyses, constantly being added to, has been built up for use in the preparation of occupational information. In addition, several thousand periodicals, manuals, and trade publications have been collected, and are available for use in preparing our informational materials.

Worker Analysis

THE Worker Analysis phase of the Occupational Analysis Section is concerned with the study of the knowledge and abilities required of workers in various occupations, and the development of techniques for estimating or measuring these characteristics. Worker Analysis activity therefore includes both the development of tests and job families. In the development of testing techniques, the attempt is made to measure those worker characteristics which are identified in the actual performance of the job. This differs somewhat from the approach to testing in the schools where tests are frequently applied in student selection. The development of job families involves the grouping of occupations which possess common denominators of worker and job characteristics. These job families are used as aids in problems of transfer, training, and vocational guidance.

Book Reviews

Book Review Editor, MR. EVERETT VAN EVERY
University of California, Berkeley, Cal.

MY LIFE IN INDUSTRIAL RELATIONS

By Clarence J. Hicks. New York, N. Y. Harper and Bros. 1941.
180 pp. \$2.50

Reviewed by Book Review Editor

The field of business books as a medium for advancing one's own professional interest is comparatively new—a kind of upper-story strategy in public relations that may have a far-reaching effect in professional publicity.

Few writers could tell their own story "professionally" without offending the reader—without leaving him feeling he had bought an advertisement instead of a book. But Mr. Hicks is not guilty of such an offense. He has told his own story so well (although undoubtedly the story that Industrial Relations Counselors would have him tell) that we are glad to accept it as an important contribution to the field of industrial relations as we know it today.

The author writes at the management level and directs his remarks (as a labor relations consultant) to the policy-making men of industry. His book will have a wide circulation at this point; if not voluntarily, it may be expected to be distributed by the Industrial Relations Counselors.

Mr. Hicks believes there is a profession of industrial relations in American enterprise and he proceeds to show how and why this field demands expert treatment. In a skillful description of the development of industrial relations we are shown how the field grew from a series of encounters with workmen to an elaborate plan of specific personnel programs. Mr. Hicks recalls hundreds of intimate personal experiences with American corporate leaders, labor figures and internationally known people. Count Tolstoy of Russia, Hicks learned from personal experience, could not be budged from his position when once he had spoken. The author crisply concludes one chapter with, "I regret to say that some executives I have known reminded me of Tolstoy in this respect."

In industry Mr Hicks traces the development of labor relations in the Colorado Fuel and Iron Company, International Harvester and Standard Oil Company of New Jersey. He discusses the evolution of an industrial relations philosophy in America and boldly tackles the theories of industrial conflict, autocracy of the employer, closed shop and other hindrances to good industrial relations as we should know it in this country. In speaking of industrial conflict, the author says this concept is not a native of America, but has been imported from Europe, where for generations rigid class distinctions and class consciousness have afforded the foundation for the notion that employer and employee have nothing in common. It is utterly false to assume that the attitudes of management and workers must necessarily be antagonistic rather than friendly, since otherwise one group or the

other would be disloyal to its class. In discussing the labor-union movement, Mr. Hicks says:

"There is much to be said for this movement and for the results it has accomplished for the betterment of working men. Its existence and growth are the natural results of the autocratic attitude of many employers. That type of employer would have ignored or crushed the labor union had it not been aggressively militant. Labor union leadership in some branches of industry in America has in recent years shown an increasing desire to aid constructive co-operation with management. But, in the main, American trade unions, along with many employers, still exemplify this militant basis for labor relationship."

Mr. Hicks does not believe that the marshalling of antagonistic forces is the only possible way to safeguard the interests and rights of the workingman. And by the same token he does not believe the closed-shop is the answer to any real problems in industrial relations. It is the author's contention that in the long run the union demands, as we are experiencing them today, will not stand analysis in the best interest of union members, employers and the American public. The closed-shop demanding 100% union membership smacks too much of coercion to be consistent with American ideals of individual liberty.

There is a lot of good sound experience packed in this volume, fifty years of a kind of professional experience that management pays dearly for when they have to find it out the hard way. If this is professional advertising, then we need more of it in the same quality.

FIVE SUPERVISION BOOKS

Fundamentals of Industrial Psychology. By Albert Walton. 231 pp. \$2.00: *Do You Want to Be a Foreman?* By Albert Walton. 165 pp. \$1.25: *Industrial Supervision—Organization.* By Vernon G. Schaefer and Willis Wissler. 283 pp. \$1.75: *Industrial Supervision—Controls.* By Vernon G. Schaefer and Willis Wissler. 267 pp. \$1.75: *Safety Supervision.* By Vernon G. Schaefer. 352 pp. \$2.50. Published by McGraw-Hill Book Co., New York, N. Y.

Reviewed by Book Review Editor

Many books have been written on the training of supervisors, industrial management, industrial psychology, industrial economics, but none has come closer to reaching the real needs of the man-on-the-job than these volumes recently published by McGraw-Hill Company. The series is the result of work carried on in the Extension Division of Pennsylvania State College and places the emphasis on the importance of supervisory training in defense production. The work on these volumes is a direct outgrowth of the experiences of the college teaching staff and the thousands of industrial relations supervisors who have received the instruction. The material is enriched by the hundreds of typical case problems.

Industrial psychology is a fitting subject for foremen and supervisors today and Walton presents the material in a very sound and practical style. The chapters on

Principles of Learning; Motives, Labor Unrest and Morale, appear to be exceptionally well done for the layman. Other chapters on the Basis of Personality, Resistance to Change, Efficiency Methods and Scientific Management, Building Productivity, and When the Human Machine Gets Out of Adjustment—are excellent contributions to the field of supervision.

Prospective foremen should read Walton's opinions of what a supervisor should be. The reader will be faced with rather frank, almost personal questions that have a challenging effect. In fact much of the field of supervision is skimmed over in analyzing the responsibilities of foremen and then placing the reader to the test of meeting the requirements for the job. Best chapters are on Seeing Problems, Selection and Training, Merit Rating, Labor Turnover, Grievances and Leadership. Certainly this Book should be made available for the worker who is about to be advanced to foreman.

Much of our supervisory problems are probably due to the fact that foremen have not been told what their relationship is to other parts of the organization. Without a background in the complicated field of supervision it is no wonder that many fail or do an unsatisfactory job of supervising workers. The real surprise is that more foremen do not fail to do a passable job with the limited training and opportunities they have to know what is expected of them. The organization of industrial supervision—its structure and place in the scheme of production—is a vast and extensive field. Such topics as Job Analysis, Job Evaluation, Training, and Production Planning are well explained to the foreman and it is clearly shown why and how he needs to be familiar with these phases of management.

The controls in industrial supervision are presented in such chapters as Interesting the Worker, Building Morale, Reducing Turnover, Promoting Safety, Dealing with Grievances, Waste Control, Labor Relations and Industrial Economy for the Foreman. Chapters are simply but adequately treated. Most of the sections of the book are followed by questions and problems that are ideal for group discussion.

Safety, like many other responsibilities, goes right back to the supervisor. The safety record of a department seems to have some relationship to the time and interest that a foreman gives to this subject. Few books have told the story of the importance of safety at the supervisory level as well as this volume does. For the busy foreman who has little time to read, this book should tell all that needs to be known in this important field of safety.

These small, handy-size volumes, are written in simple style and clearly printed. They should be ideal for a shop library.

EFFECTIVE FOREMANSHIP

Edited by Harold B. Maynard. New York, N. Y. McGraw-Hill Book Co. 1941.
258 pp. Price \$2.50

Reviewed by J. M. Trickett

With the American war effort depending on the production capacity of American industry, no managerial problem is more important than "effective foreman-

ship." One answer to this problem is the recently published *Effective Foremanship*, edited by Harold B. Maynard. The preface epitomizes both its intent and its content:

"The purpose of this volume on foremanship is to provide an up-to-date book written by practical men on the problems faced by today's foremen. The book has been written by the cooperative efforts of a number of men, men who are experts in their fields. They have contributed to the book in brief chapters a condensed discussion of those parts of their work which they feel it is essential for the modern foreman to understand. It is hoped, therefore, that the result will prove to be something more than just another book on foremanship, and that, in addition to being instructive, the reflection of the attitudes and thinking of many different practical men of industry will have a stimulating and broadening effect on the reader."

A mere listing of the table of contents would seem to indicate that this book is quite similar in scope to several other recent works on foremanship and supervision. This book is, as pointed out in the preface, different in one major respect from most others of its class: fifteen authorities in various fields collaborated to put their best thinking in one volume. Seldom does a foreman have the opportunity to sample the thinking of such a varied, yet distinguished, group of authorities.

By way of criticism, some of the chapters are a bit superficial. This is, perhaps, necessarily so, for it is impossible to penetrate very deeply into subjects like wage payments, cost control, or industrial psychology in one short chapter. There are, however, two offsetting advantages which will lead the intellectually curious foreman into wider fields. First, there is a splendid use of footnotes and other references throughout the volume. Second, many of the authors have written numerous volumes in their respective fields. After this brief acquaintanceship, many foremen will, no doubt, go in search of some of the more specialized works of these authors.

Throughout the book, numerous examples are given to illustrate the application and the misapplication of the principles involved. These will serve to bring the discussion "home" to many operating supervisors.

Finally, it may be truly stated that this book is one of those few which is readily adaptable. It is adaptable for individual study by a supervisor seeking self-improvement. Also, it would make a worthy basic text for a conference course in "Effective Foremanship." The questions at the end of each chapter will both stimulate the thinking and reasoning of the individual reader and stimulate the discussions of a conference group. Beginning supervisors should be introduced to this introductory text while experienced supervisors (at all levels) will appreciate this "refresher course" in supervisory principles.

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You May Ask a Man to Operate a Machine that is Perfectly Balanced, and Kept at a High Point of Efficiency. But the Man May be Half Off His Rocker and Decidedly Out of Balance.

Psychiatry *in* Personnel Management

Extract of Paper

BY DR. JOHN HASKINS, M.D.

Morningside Hospital,
Portland, Oregon

IN THE army in 1917 and 1918, the physical examination and a group Terman test was all that was used; the emotional factor, as investigated by the psychiatrist was largely neglected. Partially as a result of this we have a total of more than 28,000 men in Veterans Mental Hospitals and thousands more drawing compensation for mental disorders.

Army Has Stiff Mental Examination

THE army today recognizes as a part of its entrance examination a pretty stiff mental examination, as well as a test of heart, lungs and feet; the army and the navy recognize that emotional factors are important in modern warfare, and industry must recognize this same fact. We must recognize that war today is not carried on by the few men within ten miles of the front line, but it is a conflict that every person, every plant and every farm in the country participates in. War today is a total war, and the man in the plant must be as fit as the man in the tank or the plane.

In 1920 Dr. Southard stated that 62 per cent of men discharged in one industry were discharged through social incompetence rather than through occupational incompetence. He stated that he believed that dissatisfaction, both on the part of the employer and the employee, arose not from the employee's inherent inability to do the work, but rather from his inability to adjust himself to the conditions under which he had to work.

Managements have attempted to make plants a better place to work than formerly. Light, ventilation, cleanliness, safety and noise reduction as far as possible, have made the modern shop a paradise as compared with the working conditions of a generation ago. But despite these improvements there is still a labor turn-over. Physical examinations, psychometric examinations, placement tests and better plants have not solved, as yet, the problem of the maladjusted employee. We believe that psychiatry can assist in the solution of this problem.

Four Ways of Helping Industry

DR. GIBERSON divides the contribution of psychiatry to industry in three fields, but I think a fourth may be added. Her classification is as follows:

In assisting in the selection of employees for the type of work desired. In this we must consider intelligence, ability to do the job and personality. That is we believe that psychiatry can assist in the selection of workers.

After the employee is hired, it should be of help in sifting out material, and in selecting suitable people for promotion.

In assisting in correcting of emotional maladjustments among personnel, so that there shall be effectiveness of effort, and building of morale and esprit de corps in the organization.

In the prevention of accidents. Grannis states that he believes that 85 to 90 per cent of accidents have as their proximal causes mental conditions in the workers.

Four Types of Workers to Be Treated

NOW if these statements can be backed up, then I think the psychiatrist has a right to be considered in a discussion of industrial problems. Dr. Giberson, who is employed by the Metropolitan Life Insurance Company, has roughly classified the individuals who get into emotional difficulty in industry into four main groups:

1. Those suffering from organic brain disease, such as encephalitis, brain tumor, epilepsy, syphilis and from cerebral accidents.
2. Frank emotional upsets, the frank psychoses, or mental breakdown.
3. Psychoneuroses, commonly called nervous breakdown.
4. Maladjustments.

Now let us try and explain these in every day language. The first group comprises those individuals who have actual damage done to the cells of the brain or the nervous system, by brain tumor, by syphilis or by changes brought about by difficulties of the circulatory mechanism of the blood—such as arteriosclerosis. This group is the easiest to diagnose and upon which to reach a decision as to the future disposition of the individual.

There is one phase of the examination of the employee, the potential employee

in particular, that I think is very valuable, the blood Wassermann. This test for syphilis is easily done and costs but little, and it will indicate pretty conclusively the fact of the presence of syphilis. That doesn't necessarily mean that any individual with syphilis should be rejected for employment; but it does mean that it should be determined to what extent the disease has progressed. If there is a positive blood reaction then there should be proof offered that the man is receiving adequate treatment in order to insure that there is no farther progress of the disease. Involvement of the central nervous system may mean convulsions, falls and increased accidents and untreated systemic syphilis may mean slow healing and long convalescence after injury.

Some Workers Deteriorate after Hiring

WHILE the practical application of the recognition of these organic brain diseases would be most readily seen in the hiring field, there is a definite value in the consideration of those employees who have been in service for some time, and then begin to slow down, to lose efficiency, or begin to show a tendency to have accidents. That is, the man of forty who has been doing well for years, then slows down, begins to show poor judgment or to have accidents or may be hard to get along with, may be developing neurosyphilis. It is always a good idea to remember that these same diseases may develop in office or executive help, just as in the man in the shop. Syphilis and arteriosclerosis don't check up on the size of the pay envelope before they hit. Development of a judgment defect in the executive may be a much more serious thing than the same defect in the laborer.

Employees Who Are Easily Upset

THEN to consider the frank psychoses, the individual who becomes acutely excited or upset, is an easy problem to solve, easy to know how to handle. Obviously this individual is easily sorted out when hiring is considered, but the early symptoms that are shown after the man has been on the job for a while may be important. There may be a long period of developing symptoms, he may develop ideas that his fellow workmen are not working with him, ideas that he is being hindered in his efforts, he may become suspicious of everyone, become more shut-in and a less valuable member of the team. This man can fairly easily be detected by the psychiatrist early if he is given the opportunity.

The third group, the psychoneurotics, are a problem to themselves, and to those about them. They feel inferior or different, they may be chronic fault finders, they may be over dependent, they tire easily and they take any excuse to be away from work, and they may use illness as an excuse. They may be brilliant mentally and have excellent potential ability, but their desire to secure sympathy, their interest in themselves to the detriment of others renders them of little value in

team play. This type of individual is a constant source of difficulty to the plant physician, to the personnel men and to the insurance adjuster. The psychiatrist may be of assistance in (1) weeding him out before he is hurt, and (2) trying to get his mixed up emotional reactions straightened out later.

Moral Idiots

THE last classification of those with emotional or mental difficulties is that which has been classed as "maladjusted." This term means little or much, and is a waste-basket into which we toss those who don't fit into any other group, but are still a problem. Many of these are the so-called "psychopathic personalities" to use a psychiatric term. They are the individuals who have never grown up emotionally, they are equipped with the intelligence and physique of an adult, but who retain the emotional and ethical reactions of a child. They have been called "moral idiots!"

Usually, if it can be obtained, they have a long history of social and economic maladjustment, they may do well for a time on the job, but sooner or later the temptation to do something contrary to the law, or to the rules of the job get the better of them, and they are again looking for a job. They are drifters, and many of them are criminals, the petty thief, the forger who easily gets caught, are examples of this type of individual. They usually work poorly at a routine job, and I think the personnel man who has many of this type to deal with is in trouble, because of them, most of the time.

There is another person who I imagine most of you have met with from time to time; he may be essentially a member of any of the above groups, but he is usually called an alcoholic. These people cause headaches to the personnel men just as they do to everyone who deals with them.

Psychological Tests

THERE has nothing been said about the desirability, or the necessity, for obtaining the I.Q. of the applicant for the job, that is the determination of his mental capacity. The formal intelligence test is so old that nothing need be said. Every personnel man has his own ideas about that. In some organizations it has been found that for some of the routine work that the high I.Q. is not essential, and as a matter of fact many individuals with a borderline intelligence do better in many jobs than those who possess a high potential of intelligence. The test for this factor of personality can be determined by the regulation test, and the psychologist usually does a better job than does the psychiatrist. I have not stressed the routine aptitude tests, these you are more familiar with than I am. These tests are basically a test for the individuals aptitude to do certain types of work and are not essentially a personality test.

What the Psychiatrist Does

WE HAVE talked about variations of individuals. Now the question would be "How is the knowledge of these variations to be used in assisting to keep the plant running smoothly?" First to consider the assistance in hiring of employees. The intellectual and mechanical ability we can leave to formal tests, but the personality test would be the function of the psychiatrist. The question of his likes, his dislikes, habits, his recreation and the story of his former adjustment in jobs or in school would give leads to the intelligent observer. There are, or there may be, places in the shop for most any type of individual who is anywhere nearly normal. But the man must be fitted into the right niche. It may be said here that the psychiatrist who doesn't study the plant, and the type of individual needed for the particular job is not doing his own work up to the best of his possibilities.

That is, the psychiatrist must know the plant and the machine as well as the individual, unless he realizes the difference between various types of work, as well as the difference between various types of men he is apt to make a dismal failure of his work. The same of course holds true for the personnel man. Neither he nor the psychiatrist have any ivory tower job—they would be a lot better adapted to fill their own niche if they spent a fair amount of time in the plant seeing what is actually needed in the various classifications of employees. It won't hurt them to get a little dirty once in a while.

Not a Nut Doctor

WHILE we are on this subject it might be well to consider the relationship between the employee and the psychiatrist. There is and has been for hundreds of years a feeling that mental ills were a disgrace, a blot on the family escutcheon so to speak. A feeling that these diseases were different from other ills. This feeling must be overcome if we are to get the results we desire. The man feels that it is no disgrace to go and see the plant physician, that is a normal thing to do, but to go and see the plant psychiatrist is a different story. The "nut doctor" is in an entirely different category. There should be some arrangement so that the employee can see the psychiatrist without attracting comment from fellow workers, and when the psychiatrist desires to see an employee, he should be notified without publicity—the fellow workmen need not know about it.

Better Adjustment All Around

MANY workers have, or may be developing emotional upsets, and have no real grievance at all, but like to talk about themselves, the psychiatrist would be the logical one to listen. Many people feel much better, they get a tremendous relief if they can figuratively "cry on someone's shoulder"—the personnel man and the foreman are too preoccupied with plant operation to furnish the shoulder; besides the psychiatrist has years of practice listening to these sobs. All this sounds like a rather inane and immaterial thing for the plant to bother with, but I don't

think it is silly. Many people are satisfied by merely having someone listen to their story, they adjust better and work better and get along better and that's what we are aiming at.

Accident Prevention

DR. ALEXANDRA Adler of Boston recently published an article which throws some light on this subject. The physician made a careful study of 130 workers who have had repeated and multiple accidents, one hundred were Europeans and thirty were Americans. We may eliminate 12 per cent of the Europeans and 3.3 per cent of the Americans as being markedly alcoholic, 7 per cent of the Europeans and 3.3 per cent of the Americans as being of rather low grade mental defectives, and 2 per cent of the Europeans and 3.3 per cent of the Americans are suffering from organic disease. That is 10 per cent of the Americans and 19 per cent of the Europeans would have been eliminated by good staff work before repeated accidents occurred.

In a group comprising 6 per cent of the Americans and 4 per cent of the Europeans accidents evidently occurred as these people were "pressing"—that is they were over ambitious, they were trying too hard for advancement, and as a result disregarded safety factors. The next group comprised about one fourth of the Americans, 26.4 per cent to be exact, and 4 per cent of the Europeans, these were the "over fearful." They were always thinking of accidents, they were essentially timid people had always avoided danger, and they remembered all the accidents that had happened to them or to their relatives.

This over caution, over fearfulness does cause accidents as was shown by taking a group of soldiers on a cross country rise over pretty much unknown country, half of the soldiers were told of a ditch in a certain area, and half were not told about the difficult jump. The result was that three times as many of the soldiers who knew about the ditch fell off their horses as those of the group who did not know about it. That is fear affected the automatic reaction towards safety. This group should definitely respond to psychiatric approach.

Over-Pampered Workers

ANOTHER classification showed that there was a longing to be pampered, a desire to be sympathized with, probably many of those were in our psychoneurotic group. There were 19.8 per cent of the Americans and 6 per cent so classed in the European group. These people gave a history of being pampered as children. The only time they had been really happy as children was when they were ill and the mother was caring for them. One-fourth of them were the youngest children in the family, by the way. These people had an interest in being ill or in an accident, they were gaining sympathy and attention while recovering. The psychiatrist may be able to build up in this individual an adult appreciation of himself, and much may be done to smooth out his difficulties.

Seventeen out of the group, 23 per cent of the Americans and 10 per cent of the

Europeans had accidents because they felt "unlucky," they felt as though they had two strikes on them when they came to bat, and the umpire didn't like them. They said they had always been unlucky and expected to remain so. They behaved like people who were expecting to be hit on the head at any time. They were asking for accidents. It is easily understood that such individuals, who feel that something is going to happen to them, will be injured regardless of shop preventative precautions.

Bitter, Antagonistic, Resentful

THE largest of the European group 56 per cent and 13.2 per cent of the Americans, or a total of 60 out of the 130 studied, showed a reaction that is less easy to described in plain terms—they were bitter and antagonistic and revengeful; bitter chiefly towards their parents and educators. They felt that they had been fitted into the wrong groove, they should have been artists or professional men instead of laborers, and as a result they were disgruntled. One-third of them had definite suicidal ideas. They felt that if they were injured or mutilated, it would show their parents that the result of parental poor judgment was their injury. In some cases the accident was a suicidal substitute. These people were also found to be inclined to damage machinery as well as themselves.

The study of this sampling of 130 individuals who have had accidents varying from four to fifty six each, gives some adequate factual material, on which to base conclusions as to the motivation or cause of some accidents.

Suicidal Drives

THE idea of suicidal drives was mentioned in the previous paragraph—this is not at all new of course. Studies of repeated accidents, particularly traffic accidents, seem to indicate there was a strong self destructive idea in many of the individuals involved. Again this is unconscious, but is acted out by carelessness or some equal mechanism. The individual who has a desire to stop living is not a particularly valuable member of any plant set-up, he can be ferreted out and possibly improved or cured.

So far I have tried to introduce some evidence to show that a competent psychiatrist should be able to assist the industrial organization by recognizing certain types of diseases that should be treated early, and thus benefit the man and the shop. Second he should assist in selection and evaluation of employees. Third he should be able to assist in the adjustment of some of the disgruntled employees, and last he should be able to assist in the prevention of accidents.

Department of Mental Hygiene

NOW the question would seem to be "How can we utilize or make available psychiatric assistance to the plant?" The experience of those organizations who have attempted to follow out a psychiatric program seems to indicate that in

the larger plant a definite department or section of mental hygiene should be set up under a competent psychiatrist. The psychiatrist is always available, he can know the plant and its needs and he is a part of the medical service of the establishment. He can, or can try, to correct maladjustments as they arise; he can judge the personality of the prospective employees, and he can or should be able to reduce turn over, accidents and assist in building up plant morale.

Top Notch Production

TOP notch production we believe can only be attained by securing and selecting the best possible material, and keeping it in the best possible shape after we hire it. We would not expect to run a 1941 machine with an out-dated 1901 model motor that was never intended to operate at modern speed, or to deliver the power that we are expecting from it, and that hadn't been repaired or inspected since it was bought by an office man who had no idea of machinery.

This would not be an economical operation, therefore it is just as illogical not to utilize the best man available for man power—it helps the man and the plant. You wouldn't expect maximum efficiency from a machine that needed overhauling, the ailing machine won't produce and it ruins the machine. You have taken care of the physical defects of employees by selecting of people and you try to keep them that way by maintaining a plant infirmary or hospital, yet half of the physical ills noted by competent physicians are said—not by psychiatrists mind you—to have an emotional or mental component. In order to deliver the most goods the emotional quirks must be eliminated as well as the physical.

You are asking a man to operate a steel machine that is perfectly balanced, and kept in such a way that it operates at a high point of efficiency; while the machine is in balance, the man may be half off his rocker and decidedly out of balance. We believe that the psychiatrist can help select the man, and can help to keep him going with less loss motion, less emotional stress and therefore get more out of life and the plant more for their money, and produce more goods. That is what we are striving for today.

Abstract of Paper read before the Third Annual Pacific Northwest Personnel Management Association Conference, Seattle, Wash.

All Countries Now in the War have Some Form of Labor Conscription in Order to Attain a Sufficient Output of War Materials. What Would such Conscription Here Mean?

Labor Conscription

BY W. V. OWEN

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CONTROL over markets is one of the characteristics of a war economy. The ancient clash between freedom of action and regulation takes on a new realism to millions of workers, when the drafting of labor is being considered, because conscription of labor directly affects the lives of workers.

Control over the labor market may be expressed in various forms, such as wage regulation, rationing of consumers' goods (a kind of wage regulation), regulation of working hours, and conscription of labor.

Various Degrees of Conscription

THE conscription of labor may be found in varying degrees. The mildest form of labor conscription is present when public opinion demands that all hands must be at work. This attitude may be expressed in a "work or fight" policy. That all able-bodied persons should be employed during a national emergency is generally accepted as the obvious consequences of an all out war effort. Compulsory assignment of workers to specific jobs is a more advanced degree of labor conscription.

It would seem also that employers would no longer be free to select their own workers under a system of labor selection. Employers would be assigned workers, as army officers are assigned men.

The wisdom of assigning workers to specific jobs is based upon the assumption that workers are unable or unwilling to select the employment best suited to each worker's ability, and also upon the belief that workers will not follow the employment information issued by public employment offices.

Another possible way of organizing a "labor army" is to have voluntary enlistment of those persons who would be willing to serve as "labor soldiers."

Conscription of labor, if and when it comes, will be a new economic and social experience in the United States. The absence of experience means that statistical data are unavailable as an aid to analysis. Despite the absence of facts it would seem reasonable to suppose that labor conscription is fraught with many obstacles.

Place of Employment Service

THE burdens which labor conscription would place on the recently Federalized Employment Service are difficult to visualize. The employment service must function as a national service rather than as a state service, which complicates the problem. The wider the market the greater the probability of complications. It is easier to provide market information to the employers of Indiana than it is to the employers of the United States. But, labor conscription would hardly be feasible without a Federalized employment service. So, the first problem is to shift from state labor markets to one national labor market.

Testing and interviewing in order to set up personnel records for millions of women and others who have no work records would be an onerous task. This task is comparable to registration for military service, the difference being largely one of size, in that more persons are involved for a labor draft than are involved for an army draft.

Economic Problems

WORKERS in a free labor market have the responsibility of providing themselves with transportation and housing. But, if workers are assigned to shops located beyond commuting distances, public authority assumes the responsibility of providing workers with transportation and shelter.

Should centralized labor market authority consider the social effects of vastly increasing the mobility of labor? Or, are the probable economic results the only standard? In my opinion the economic results should dominate in a war economy. However one cannot ignore the morale of workers. The morale of some workers would suffer from being separated from family influences, while the morale of other workers might be improved by a temporary severance of family ties.

Then, there is the effect on the social, economic and political structures of local communities. The movement of many workers away from one community and into another jurisdiction creates problems for schools, churches, public utilities, towns and counties.

Values of a Free Labor Market

IN A free labor market men and women offer their labor for sale voluntarily. They may elect to withhold their services from the market without provoking serious public criticism. During a period of unemployment, public opinion even endorses

idleness of those who do not "need" work. Married women frequently find the labor market closed to them when unmarried women are seeking employment. On the other hand, when the supply of labor fails to equal the demand for labor in war industries, society demands that all able bodied persons enter the labor market. When organized society is fighting for its existence, and when that existence depends on work, society must insist that all of its members go to work.

When the labor market is free employees and employers voluntarily choose employment and choose workers respectively. If the choice proves to be unsatisfactory another choice can, and very probably will be made. Employers and employees assume the responsibility and exercise initiative in establishing a productive relationship, one with the other. By assuming responsibility and by exercising initiative, the individual has functioned as an individual, and by so doing he has had another personal experience. If experience is educational, education has been served. The act of selecting employees and the act of selecting employment belong to the actors, and therefore the right to hire and to be hired is a kind of intangible property right. There is a tendency for buyers and sellers to defend the wisdom of purchases and sales, respectively. Buyers tell themselves and others concerning "bargains," while sellers speak of "good deals." So, there probably is a tendency for workers to rationalize about the job which they select. Likewise, employers speak of the "good men" they have hired.

Dignity Generated and Maintained

FOR some curious reason, it seems that the dignity and self respect of American workers, at least, and probably workers of other countries, is generated and maintained by labor market freedom. In the absence of war, American workers very probably prefer freedom in the labor market rather than a controlled labor market, even though real income were substantially greater in a severely regulated labor market. There is some doubt that worker productivity would be increased by assigning workers to specific employment.

There probably would be better placement in a controlled labor market, in that a managed labor market through its centralized offices and interoffice clearing, coupled with the use of tests, could better adapt the abilities of workers to the work to be done, as compared with an unorganized labor market. However the advantages of better placement through conscription might be cancelled out by loss of worker morale.

Effect on Wages

IT is argued that free individual movement of workers will tend to eliminate wage differentials by the movement of workers from low paid employment to high paid employment. Wage differentials would become less pronounced not only by the movement of workers within the market, but also by the appearance of new

workers in the market as long as the supply of labor is elastic. If labor moves to higher wages, war industries can attract more labor by offering higher wages than are paid in non-war industries. However, competitive bidding for labor, between war industry employers would tend to raise wages materially.

Nothing is gained by society in paying wages higher than is necessary to get maximum efficiency from workers. Substantial increases of wages makes inflation more probable, but not inevitable. The probability of inflation is further increased when higher wages are coupled with a decrease in the quantities of goods to be bought with the higher wages.

Higher wages and the possible inflation to follow, resulting from competitive bidding for labor by war industries should be checked partially by labor rationing for two reasons. The first reason being that employers would have no reason for raising wages in order to attract labor under a system of labor rationing. The second reason is that labor conscription would tend to increase the total supply of labor in general, and in particular, to increase the supply of labor in the war industries.

Labor Market Complicated

THE Labor Market is extremely complicated. The supply side is composed of some fifty millions of persons. Each person is an organism made up of varied abilities and disabilities, desires, degrees of mental and physical health. This organism lives in a series of societies, each cupped in a larger society. First the worker has his own society, he can't escape himself. This personal society exists perhaps in one room in a boarding house, on the bus going to and from work and many other places whenever and wherever a person is alone with himself. The family represents another society, the community another and so on up to the nation. Under a free system individuals select more or less the social and economic groups that best fit the needs and desires of the individual. While, in a controlled labor market the individual loses part of his freedom to select his group.

The demand side of the labor market is also complicated. There are thousands of different occupations. Each shop has its own "personality." The "atmosphere" is quite different from shop to shop. Employers have learned more or less to hire the type of workers who are best adapted to the work and conditions. This knowledge is "personal" knowledge which can scarcely be transferred to a centralized placement agency.

This article does not purport to either support or oppose labor conscription, but only to point out some of the problems which are involved in a labor conscription program.

In the event that a free labor market fails to provide sufficient workers to maintain our war economy, labor conscription in one form or another may very well become feasible as an effort to make better use of our human resources. Experience and experience alone holds the answer.

Breathes There a Man with Soul so Dead, Who
Never to Himself Has Said "I'm the Best Darned
Judge of Human Nature in the Whole Wide
World?" Some of the Cute Devices Used by
Department Heads to Circumvent Personnel
Procedures.

The Old Army Game

BY E. J. CROSBY

Washington Water Power Company,
Spokane, Wash.

IN EVERY business organization where a personnel procedure has been established, the average department head and supervisor soon discovers that if he is to continue doing things as he has done them in the past he must circumvent the personnel procedure. It's the old army game . . . where there's a will, there's a way. In this case, I present for your consideration that prime tool for a circumvention—Gentlemen, the Subterfuge. There are eight different types.

Hasty Harry

FIRST there is the Hasty Harry, sometimes also called the Four-Fifty Special. This describes the supervisor who, wishing to employ someone without benefit of the personnel department, rushes into the office of the personnel manager at ten minutes to five on a busy day, and explains that he has to hire a man to go to work on the night shift at five o'clock to fill a vacancy that occurred a week previously. Of course he has a man in mind. As a matter of fact the prospective employee is waiting just around the corner until the supervisor gives him the high sign.

Shilly Shally

NEXT, we have the Shilly-Shally device, sometimes called the Ring-Around-the-Rosy routine. Under this plan the department head, having some individual in mind whom he wants to hire in spite of the personnel department, informs the department that he has a vacancy, and gives an elaborate set of specifications as to the type of applicant desired. The personnel department immediately goes to work, searching the files for applicants who will meet this set of specifications. The

applications are turned over to the department head and everyone in the personnel department breathes a sigh of relief. But next day, the department head returns them, with a shake of the head. "None of these will do for this job," he announces. Then he turns in a different set of specifications—for the same job. Again the frenzied search of the files and soon another batch of applications is sent up. These come back—and with them another set of specifications. This keeps up until the department head is certain that the personnel manager is punch-drunk. Then he hires the man he wants and tells the personnel department about it later.

The Repentant Sinner

THE next type for consideration is known as The Repentant Sinner. This describes the department head who flagrantly violates personnel procedure and then seeks to escape condemnation by what is known as the Sackcloth-and-Ashes routine. Early one morning he will timidly open the door of the personnel manager's office, and make his entrance on tip-toe with downcast mien. It is apparent that the man is dripping with remorse. He announces with a catch in his voice that he has a confession to make. He has hired a man without the benefit of the personnel department. The man has been working for two days. What to do? Oh, it will never happen again—it was just one of those things, he can't imagine what came over him.

The Delayed Pass

THE next routine to come under our scrutiny is the Delayed Pass, which is something like the well known sleeper play in football. In this instance, a vacancy has occurred in some department, and inquiry having been made by the personnel department in an effort to be helpful, the department head announces that he is not going to fill the vacancy right away. Just going to try to get along with one less . . . going to see how it works out, he says. With this information at hand the personnel department waits for a call. And then, one day, sometime later the personnel department after checking over the files, addresses a casual inquiry to the department head about that certain vacancy. How are things going? "Oh," the department head will say in his most off-hand fashion, as though someone had called his attention to the fact that his coat collar was awry. "We filled that job one day. Had to do it in a hurry. Found just the right man. Sorry, old top . . . say, how's your golf?"

Mother's Little Helper

NEXT we have a very amusing case to consider that of Mother's Little Helper. You know the type. This department head, deciding he must do something for the daughter of the credit manager of his department store, discovers that he has a mission. He starts on the prowl—as assiduous as the government predatory game hunter. He goes from department to department, consulting department heads and

supervisors, trying to sell his bill of goods. Eventually, somewhere along the line, he makes a deal—involving reciprocity or something or other. Then comes the double shift—the now-you-see-it-now-you-don't-business and another employee is on the payroll without benefit of personnel procedure. This department head is the generous type—he is willing to do anything to make the work of the personnel department lighter.

All This and Heaven Too

WE TURN NOW to another routine which we shall call All This And Heaven Too by which a department head will attempt to get his own way in spite of personnel regulations. A vacancy having occurred, the department head will call for applications and will submit a long and rigid list of requirements. If it is a stenographer's job that is open he will insist upon the personnel department finding a girl with definite physical requirements, a college education, five years experience, who will work for \$60 a month and has no thought of marriage. In effect, this department head dares the personnel department to find such a person, and when the personnel manager fails to locate such a paragon, the department head feels perfectly free to hire the individual he had in mind and who does not, of course, come anywhere near filling the specifications submitted.

The Loaded Dice

THE next device is known as The Loaded Dice. Having in mind a certain individual whom he would like to employ, the department head sends this person in to the personnel department for an interview and to submit an application. Some time later the department head calls for applications. He is very vague about what he wants. "Oh, just send up a couple of dozen applications . . . I'm not just sure," he will say. If the application of the favored individual is not among them, that batch of applications will soon come back and more will be requested. This keeps up ad infinitum, or until the sought-for-application turns up.

Every Shot a Miss

AND finally, we have what is known as Every Shot a Miss. This refers to the department head who in twenty or thirty years of employing people has always managed to hire the wrong people for the wrong job. His labor turnover is steady and prolific. It is a byword in the organization that a girl going into his department will wind up as a nervous wreck, or will seek the doubtful solace of connubial felicity e'er six months have passed. But to all this the department head is delightfully oblivious. Any suggestions from the personnel goes in one ear and out the other—recommendations are honored more in the breach than in the observance. He just doesn't go along with personnel procedure.

Abstract of a paper given at the Third Annual Pacific Northwest Personnel Management Association Conference, Seattle, Washington.

One Supervisor to Every Nine Men in Peacetime,
One to Every Twelve Men in Wartime, with the
Number Rising as High as One supervisor to
Forty Men in Some Plants. This Calls for Very
High Grade Supervisors.

Supervision I Selection

BY HERBERT MOORE

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THE place of foremen in industry has changed radically. Not long since, the foreman received his orders from "above," transmitted them to those under him, and fought against time and the recalcitrance of indifferent workers to meet the production deadline.

Today the foreman shoulders different responsibilities. While still responsible for maintaining production schedules and insuring that adequate quality standards are being met, he has a much more difficult task to perform. A catalogue of the types of responsibilities of a foreman will indicate the manner in which his task has broadened.

Job of Today's Foreman

HE MUST represent management to the men in his department. To do that adequately he must not only know management's wishes and company policy, but he must be so convinced of the soundness and justice of that policy and these wishes that he can give them unstinted support.

He must represent men to management. To do that adequately he must know how the men feel about every decision and request of management, to what extent the company offers them fair treatment and a chance to satisfy their values, and to what extent this work harmonizes with their interests and abilities. The modern foreman is periodically judging his men and reporting these judgments to management. He cannot make fair judgments unless he knows the men from every angle, and knows each man's assets, liabilities, and attitudes.

Training Job

HE MUST aid in training his men. The task of job training has long since been recognized as a part of the foremen's function; today his task is greater. He is concerned not merely with insuring that the men are adequately trained to perform the jobs under his direction; he is also responsible for discovering the trainability of his men in other related, and even unrelated, fields. To do this adequately he must have a measure of his men's abilities, interests, hopes, and ambitions.

He must be on the alert for the occasional trouble maker or malcontent who may get into his unit. Not only must he "spot" such men before they express their dissatisfaction in boisterous form, but also he must be able to interpret these discontents in terms of their latent causes. The foreman who discovers malicious acts after they have happened falls down on his job. His task is to discover their possibility while they are still in the intentional or latent stage.

Paper Work

IN ADDITION to the above four major demands, he has to care for the controls and "paper work" that federal and state legislation and company record systems demand; he should keep his house in order; he should be on the alert for danger zones and be constantly improving the safety devices in his unit; he should solicit suggestions for improving the quality and quantity of the work and the condition of the work place; he should help replace those who resign, and he should be on the alert for new channels through which the products of his company may give a wider and more satisfactory service.

To be equipped to meet these demands, the modern foreman must meet standards that are quite different from those required of his predecessor. In the bygone days the person who was thought best fitted to fill the foreman's position was the departmental worker who had the most satisfactory work record. Innumerable experiences have taught management that the selection of foremen on this basis is fraught with danger. The modern foreman is not necessarily a pace-setter, neither is he the most skilled and highest quantity or quality producer in the unit. His success as a foreman depends on other factors than job knowledge and job efficiency. It is true that he should know the jobs that he supervises and should be able to assist any operator who needs help, and that can't well be done unless he has had experience in every type of job he supervises. But, to be successful in his job today, the foreman must be equipped with other assets. What are they or how can their presence or absence, strength or weakness, be discovered?

One generally recognized requisite of the modern foreman is that he be above the average in his general level of ability. How far above the average he needs be depends on the complexity of the work situation; in some of the more complex industries, the level of acceptability and one criterion of "training for foremanship" eligibility is that the employee be in the upper third of the population in ability level. In other types of work the technological and administration problems that

are to be solved are not so difficult, and one with about average ability is equal to the job demands. However, the level of ability that is needed cannot be determined in advance.

An estimate of the needed level of ability can be gained by administering a general ability test to a reliable cross-section of present foremen. If such a test is used it should not be administered on a time-limit basis, as there are many successful foremen who do not read with ease, but who can solve problems that form the contents of tests, once the problems are understood.

Ability to Get Worker Motivation

A SECOND essential of the modern foreman is that he possess the ability to impart his information to others; much of his time is spent in inducting others into the methods of operating machines or of avoiding errors. The ability to impart that information depends upon (a) powers of analysis—to separate the job into levels of difficulty, (b) ability to match imparted information with the absorbing capacity of the learner—so that men are matched with jobs that they are able to master, and (c) such personality factors as the capacity to create interest and arouse enthusiasm, the patience persistence, and perseverance that will make possible the enduring of endless repetitions, and the interest in other people that will convert the mastery of the job into a personal achievement for each operator.

Unfortunately, there are no tests that can reliably appraise these capacities. Some estimate of a person's capacity to meet the first of these demands—ability to make analyses—can be gained from sections of some well standardized tests, but the appraisal that is thus gained does not necessarily hold true in objective and practical situations.

There are no tests available that can give a reliable estimate of how well one person can tell or show others how to acquire a skill, neither can any available test give a measure of a person's capacity for arousing enthusiasm or taking interest in others. A well-controlled and properly directed interview that appraises past experience in terms of present demands is the only tool that will give an indication of future behavior in such situations.

A third essential is that the modern foreman display adequate self control. No man can direct others if he is unduly excitable or subject to periodic depressions and worries that express themselves in frequent irritations. On a par with emotional control is the subordination of selfish interests to the welfare of the company he serves, and the presence of sufficient caution and suspicion to insure sound judgment of both human and material forces.

Extent to Which Tests Help

SOME measure of the extent to which these qualities exist and are controlled can be gained from personality tests. When the indices that are given in such tests are checked against objective behavior and against the estimates of superiors, they

provide a tool for estimating the probability that an employee will or will not develop into a foreman or supervisor.

By way of summary, it may be said that there are three tools which, when properly used, can be of value in selecting from among the first line employees those who are qualified for supervisory responsibilities:

a. A general intelligence test, whose desirable attainment levels will vary with different types of supervisory responsibility.

b. A Personality Test whose indices are checked against behavior and the ratings of superiors.

c. An interview that is directed toward eliciting those qualities that are essential in the supervisory relationship and that cannot be appraised by existing personality tests and rating forms.

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University of California
Los Angeles, Cal.

ALL about us today is heard the cry for more and better leaders in every phase of industry, commerce, and agriculture; and there is no less a need in the governmental field.

There are several reasons for the demand for leaders. First, this demand is caused by the tremendous growth of many industries, such as the aircraft industries here on the west coast, where in a number of instances the increase in personnel has been from 2,500 men to 40,000 men over a period of two to three years in one plant alone; and in some of the shipyards where they started with an entirely new company and are now employing from 12,000 to 14,000 individuals. This makes a tremendous demand for supervision in all levels of employment.

Why Shortage of Leaders

SECOND, there is the tremendous growth of old industries, due to war orders, where the increase in personnel has been between 350 and 400 per cent during the past year. There is scarcely an industry in Southern California receiving war orders that has not had a great increase in personnel.

Third, there is the complacency evidenced by industry during the past ten years (in times of less vigorous industrial activity) in not accepting training as one of its responsibilities.

Fourth, to a limited extent, the military conscription, which has taken away some of the younger leadmen and foremen who have climbed one or two rungs of the supervisory ladder, has had its effect on the demand for leaders.

Fifth, a basically important reason is that for some twenty to twenty-five years

now the employee has been pulling away from the foreman, because in general the foreman was considered by the employee as being a part of management; while the employer, on the other hand, was pulling away because he believed the foreman represented the employee too actively or too earnestly, and thus the foreman became the forgotten man in industry.

There are three major levels of the supervisory force which exert leadership in industry: (a) the general foreman, (b) the supervisor, and (c) the leadman or sub-foreman, formerly nicknamed the "straw boss." Probably the personnel man should be included as a sort of administrative supervisor because of the way in which his work affects the supervisor—at least we can list him as being a leader in industry. He has contacts with the foremen, with management, and with the public. He is either the industrial relations director or is a part of the industrial relations department.

Responsibilities of Leaders

WE SHOULD examine the definition of supervision in considering a definite type of leadership in industry as the supervisory type of leadership. Supervision is the control and responsibility for the effective work of a department or group of departments, and the person having this control is the supervisor. The supervisor in general has a three-fold job; that of dealing with the mechanics or operation of his department, that of dealing with human relations, and that of acting as an instructor, to see that the operations are carried out in the most effective and efficient manner.

Perhaps we should consider what is meant by "supervisor." A supervisor is a representative of management who plans, controls, or guides the employees in some or all phases of their work and whose responsibility it is to represent the management in its dealings with the employees. In this relationship he may be expected to convey to the management the attitudes and reactions of employees.

Duties Listed

WE MIGHT examine briefly the duties and responsibilities of the leader in industry:

1. He must see that the work is done.
2. He is responsible for the inspection of the work when it is done.
3. He is responsible for the selection and advancement of men for specific duties.
4. He formulates instructions and sees that they are carried out.
5. He transmits orders and instructions.
6. He must interpret instructions and see that they are correctly interpreted by others.
7. He must be constantly on the alert for the company's interests and must also be on the alert for the employees' interests.
8. He must maintain intra and inter departmental cooperation.

9. He must train employees for their jobs, or see that they are properly trained.
10. He must check upon the qualifications in the selection of his personnel.
11. He must supervise men in such a manner as to create loyal workers.
12. He must apply an understanding of human nature.
13. He is responsible for the morale of the department.
14. He is responsible for the quality of the product.

The different levels of supervision will require various degrees of application of the duties and responsibilities listed above.

Basic Qualifications

IT is apparent how such duties and responsibilities call for a particular type of individual, having qualifications along the following lines:

1. He must command the respect of his men.
2. He must have good health.
3. He must make a good appearance.
4. He should have knowledge, training and experience in the work he is supervising.
5. He should have initiative.
6. He should be able to make prompt decisions.
7. He should be progressive, and should develop a certain amount of temperate aggressiveness.
8. He should have the kind of a mind that can organize the work of his department in a logical and efficient manner.
9. He should have the kind of a mind that would be able to solve difficulties and problems by the proper treatment of facts.
10. He must be a good judge of human nature.

Selection of Supervisors

HAVING listed the qualifications of a supervisor whose duties are as indicated above, industry should have some method of selecting prospective and potential leaders.

What usually takes place in industry now is that the best worker, or the most cooperative and most aggressive individual, or sometimes the person who has courted the most favors of his immediate superior is the one who is selected as a supervisor. There has been very little done by industry in setting up an "in-service" selective and training program for developing a reservoir of supervisory leaders. In the past they have "just grown," like Topsy, and when the situation became serious someone was yanked out of a particular job and then, through the trial and error method of training, the supervision was begun.

There are probably several reasons for this. Industry has always reflected the thought that training was expensive, that it was an added cost to the manufacturing

of the product. Not enough study has been conducted by management to show that whether or not training exists, all the costs are hidden somewhere in the total price of the manufactured article.

Planning to Obtain Leaders

THE forward looking industry will make an organized plan for the selection and training of its supervisors, such as the following:

1. They will make a very definite analysis of the duties and responsibilities of each supervisory position.
2. They will make a labor audit of their workers, and the probable needs for an adequate supervisory force.
3. They will also determine the past and prospective progression of each man in the group he supervises.
4. A progressive company will keep a list of problems which have arisen as a result of improper supervision and thus have a guide in the form of one or several factors for the selection of supervisors.
5. They should also have their personnel in each department so well catalogued that they can easily check upon the potentialities of each employee and his probable dominant qualities for leadership.
6. Then the department should be so organized that these prospective key men could be placed under watchful supervision so that further check could be made upon the potential qualities that they have that are required in supervision.

Some scheme such as this is desirable: The preparation of a check sheet to check the degree of responsiveness that the individual gives to policies and procedures, his cooperativeness, the results obtained from direct instructions to him—in fact, the items in the classifications listed above could be checked upon by the supervisor and properly related to the records in the personnel office. It is important that every department head should stimulate and vitalize all individuals in the department who are contributing their efforts to the production of the article for which they are responsible. The most imperative thing that can be done is to be sure that a plan for detecting good material for supervisory positions is set up in every department and then that these individuals are given an opportunity of showing some of the characteristics that are required.

Training of Supervisors

A TRAINING program for supervisors should be on a company-wide basis and then be flexible enough so as to permit of further break-down into departmental programs. It is the feeling of leaders of personnel work in industry that wherever possible the training of the supervisory staff should lead toward the up-grading of their own employees rather than bringing in men from other industries or from the outside for supervisory positions. Only in rare cases should they resort to going out

of their own organization for these men. It is necessary, therefore, to have top management completely sold on any supervisory training programs before such a program is introduced, because top management's attitude reflects throughout the entire organization. We must bear in mind that management's cooperation in a training program is reflected more by its actions than by words of approval. Unless management actively participates in the introduction of training programs in the various levels of supervision there can be too many possibilities of failure. It takes more than "lip service" by management to introduce a training program to their personnel.

The training of supervisors should be on two levels; first, the introductory level, where the individual who has been selected by the above procedure might be given a definite program of training; and, second, growth on the job. This introductory program of training might include the following: (1) foremanship and what it is; (2) foreman-management relations; (3) foreman-worker relations; and (4) leadership and self-improvement.

In "foremanship and what it is" the place of a foreman in the company could be illustrated by means of organizational charts so that he may see definitely where he fits into the program. The assets and liabilities of good foremanship and the importance of organization and problem solving should be stressed.

Foreman-Management Relations

IN "FOREMAN-MANAGEMENT relations" the various relationships that the foreman has with other departments and with management should be discussed and made a part of his thinking; also, his function as management's representative to the employee, and as the employees' representative to management should be considered, as well as the proper method of presenting management's policies to the workers and the proper presentation of the workers' problems to management. The supervisor's method of obtaining decisions from management, and such details as correspondence, reports, communications, and other details of his department and their relationship to the general organization should be discussed here.

In "foreman-worker relations" a detailed study of company policies and company problems should be stressed; and, further, the training should consist of some elements of dealing with human nature, illustrating individual differences and the importance of being alert in the observation of conditions of human nature that breed trouble or create disturbances. Problems of transferring, training, and re-training of employees and the policies of hiring and firing should be a part of this program. They should be given information on the laws affecting labor-foreman relations such as the Fair Labor Standards Act, Wages and Hours, Social Security, Employment Compensation, Workers' Compensation and other employer-employee benefits offered by the company. There should be also a brief discussion upon the delegation of authority, because it is the new man who sometimes fails to

know which of his responsibilities he can delegate and which ones he must carry out himself. The methods of handling classifications and of making adjustments of personality conflicts or worker deficiencies should be considered and some attention paid to the handling of discipline problems and training in the selection and rating of workers.

Leadership and Self-improvement

THE progressive supervisor will make a complete analysis of his job as a foreman and will continue to study his job. The actual performance of the operations is not as important in maintaining his leadership and self-improvement as continually giving attention to and learning the related or technical phases of his job. He may become competent in the doing of his work, but the thoroughness and the efficiency with which he does that work is largely dependent upon his conversance with the related information, such as laws affecting workers, psychology of human relations, new procedures and methods of organization, and job and inter-departmental, as well as departmental relationships, which are constantly changing.

How Shall Training be Conducted?

PROBABLY the best method of carrying on the introductory training will be through a formal program conducted informally. The second phase of the training of the supervisor is properly related to the last, or the fourth section of the introductory training; that is, his continuous growth on the job, and the best manner that industry has found to conduct this is through foreman or supervisory training conferences. Sometimes it may be best to have foreman training conferences conducted by outside specialists; while in some plants, or under certain conditions in other plants, it may be more appropriate and preferable to train some of the key men in the plant to conduct the conferences. The programs should be built to meet specific needs that might change from year to year.

The intangibility of predicting the results of training precludes objective measurements, but at least some attention should be paid by industry to the effect that supervisory training programs have on personnel, on working conditions, and on production. If a wise policy is followed out, and a definite attempt is made to obtain good results, one will be surprised at the benefits to be derived from a well planned, well conducted selection and training program.

Mr Alex. Heron of the Crown Zellerbach Corporation and WPB pointed out recently the Absolute Necessity and Responsibility of Personnel Men Gearing Their Present Company Labor Policies so That Inevitable Postwar Disturbances Will be Minimized.

Postwar Planning

Digest of Survey

BY GEORGE B. GALLOWAY

Twentieth Century Fund,
New York, N. Y.

THE present edition of this report describes the work of a number of commercial firms and trade associations that are now actively making plans for the postwar period. Among those included are General Electric Company, the National Association of Manufacturers, National Association of Real Estate Boards, American Iron and Steel Institute, American Association of Advertising Agencies, United States Chamber of Commerce, Association of American Railroads, National Automobile Manufacturers Association, and others.

The editor points out that this list is far from complete, and that it is more difficult to obtain comprehensive data from commercial than government and public welfare agencies.

One Hundred Agencies Making Plans

IN *Postwar Planning in the United States* the Fund describes the work of 35 government agencies, 33 private agencies, 11 industrial and financial organizations, 16 trade associations and 7 rail, highway, water and other transportation agencies now actively engaged in postwar planning research and says that further investigation undoubtedly would reveal more. Much of the research is still in the planning stage. The report catalogs the leading agencies, lists and classifies the projects each has under way and includes a bibliography of current books, pamphlets and articles on postwar planning.

The survey, which was made for the Fund by Dr. George B. Galloway, emphasizes the magnitude of the public and private effort to anticipate and make plans to meet the social and economic problems this country will face when the war is over. There is frank "recognition of the fact that the problems of war and peace

are inseparable, being part of the same social fabric, and that wartime and postwar planning is a continuous and indivisible process."

Summarizing the findings of the investigation the report states:

Certain more or less common assumptions and objectives for the United States after the war are now taking shape. With few exceptions, a democratic victory is generally and confidently anticipated. The possibility of an Axis victory enters hardly at all into the calculations of American postwar research.

The desirability of preserving the private enterprise system as the chief component in the American postwar economy is widely taken for granted by both public and private agencies, although there is some question whether private enterprise, alone and unaided, can create full employment and produce security and abundance for the masses.

Government Agencies Planning

AMONG the major federal government agencies covered in the report is the Board of Economic Warfare, of which Vice-President Wallace is Chairman and Milo Perkins is Executive Director. The Board is now the central agency in the federal government for postwar planning in the international field. It is intensively engaged in dealing with the economic phases of the war itself, such as the allocation of lend-lease materials and the export of foodstuffs to friendly nations, etc. The Board even in this work is giving thought to long-run implications for the world after the war.

In the Labor Department, a Post-War Division, with Dal Hitchcock as Chief, has been established in the Bureau of Labor Statistics. The Division, in collaboration with other government agencies, is studying such subjects as current and postwar labor problems of communities having a large expansion of war industries; general dislocations in the labor market likely to follow the end of the war; size, age composition and training of the nation's labor force; how workers spend their money; and potential future demand for various types of consumer goods.

The Division of Research and Statistics under the Board of Governors of the Federal Reserve System has retained Professor Alvin H. Hansen of Harvard University as special economic adviser. Subjects being studied include probable changes in American trade resulting from postwar developments; possibilities of federal and state aid in stimulating urban redevelopment and housing; federal-state-local fiscal relationships; and international economic relations, particularly in connection with the Joint Economic Committees of Canada and the United States.

The National Resources Planning Board, under Charles W. Eliot as Director, is exploring postwar problems with the administrative assistance of Luther Gulick, John D. Millett, and others. The Board correlates and coördinates the work of other agencies, as well as initiating projects of its own. It has marked out the following lines of action to be explored and developed: plans for demobilization of men, war plants and areas both for and with private enterprise and for public activ-

ity; plans for economic security; plans affecting population and man power; plans for financing and fiscal policy; plans for regional, state and local participation; and plans for international collaboration. In addition, special studies are under way on long-range forecasting of national income and output; development of city planning; and postwar social services.

Post-War Unemployment

THE Public Work Reserve is developing a "reservoir of useful public projects to absorb post-defense unemployment." Jacob Baker is Coordinator of the Public Work Reserve, which is financed by the Work Projects Administration, sponsored by the Federal Works Agency, and co-sponsored by the National Resources Planning Board. The aim is to secure from all public agencies—federal, state and local—a listing of needed work to be done in the next five or six years; to assist local governments in developing long-range programs and plans for such work; and to keep them periodically revised and currently up to date.

The Department of Agriculture has set up an Interbureau Committee on Post-War Planning, with Roy I. Kimmel as Chairman. The work of the Department in the postwar field involves three principal lines of activity: the conservation and development of physical resources, crop land and pasture, range land and forest land; the development of rural facilities and services; and agricultural-industrial relations. Plans are being developed for each state on the basis of subsidiary general plans for smaller units. The states have been grouped into nine regions for postwar planning, each with a local chairman.

Administrator Paul V. McNutt of the Federal Security Agency last fall appointed a Committee on Program Planning, with Walter D. Cocking as Executive Officer. The Committee is working out long-run programs in the following fields: public health, social security, education, nutrition, recreation and unemployed youth—and is developing plans for postwar activity in each of them.

International Problems

THE Treasury Department is concentrating on current and postwar aspects of governmental finance. The Office of the Secretary is studying intergovernmental debt problems and problems of belligerent occupation. The Division of Tax Research, directed by Roy Blough, is studying federal-state fiscal relations. Other studies are also being made by the Division of Monetary Research and the Division of Research and Statistics.

Postwar studies of the Department of Commerce are centered mainly in the Division of International Economy, under Amos E. Taylor, and the Division of National Economy, under Arthur R. Upgren, both in the Bureau of Foreign and Domestic Commerce. The first named Division is making a study of the postwar international financial position of the United States for, and in collaboration with, the Board of Economic Warfare. The second is interested in five chief lines of study: conditions necessary for the maintenance of a high level of private investment in the

postwar period; effects of deferred demand for civilian goods; private capital expenditures for plant expansion and restoration after the war; cooperation with business in planning a private works reserve; and international implications of domestic programs to secure high output after the war.

In addition to those mentioned, a great many other governmental departments, bureaus, commissions, etc. are described in the Fund report as actively working in the postwar field. Included among such are the Office of the Coordinator of Inter-American Affairs, Federal Housing Administration, and the Federal Power Commission.

Private Agencies Who Are Planning

AN EQUALLY long list of private agencies, many of whose study projects are of a scale and scope to match governmental efforts, is included in *Postwar Planning in the United States*. Among them the Fund lists the Commission to Study the Organization of Peace, Council for Democracy, Rotary International, National Bureau of Economic Research, National Planning Association, Federal Council of Churches, New School for Social Research, National Policy Committee, Social Science Research Council, Council on Foreign Relations, American Library Association, and many others.

The twentieth Century Fund itself is one of the leading agencies now active in the postwar field. It will soon publish a series of special reports made to the Fund by Stuart Chase in which he will describe in popular language what he thinks the crucial postwar questions are likely to be and will suggest some possible solutions. The Fund, also, is now organizing a major research project in this field. Evans Clark, Executive Director of the Twentieth Century Fund, said yesterday, "In addition to our own activities, we hope to keep the director of postwar studies of other agencies as nearly up to date as possible. We shall issue revised editions of *Postwar Planning in the United States* from time to time, as additional information becomes available."

Liberty Bank Report

THE report cites a poll made by the Liberty Bank of Buffalo which shows that of 360 manufacturers replying to its questionnaire, 66 per cent are maintaining or expanding their industrial research programs, 20 per cent have developed new products, 32 per cent are maintaining or increasing their sales staffs to improve customer relations, and 18 per cent are maintaining or increasing advertising expenditures.

Personnel men are advised to keep up to date in knowing what is being planned for the postwar period, who is doing the planning, and how this fits in with their own present policies.

They are advised to write to the Twentieth Century Fund, 330 West 42nd Street, New York, N.Y. and ask to be placed on the mailing list of this Fund to receive announcements of reports.

This does not mean that the Personnel Journal endorses their findings. But we should all know about them.

Book Reviews

Book Review Editor, MR. EVERETT VAN EVERY
University of California, Berkeley, Cal.

CONFERENCE PROCEEDINGS

Third Annual Pacific Northwest Personnel Management Association. Seattle, Wash., 1941. pp. 216. Price \$2.00 (\$1.00 to libraries)

Reviewed by Charles S. Slocombe

The papers and discussions of this conference are of nation-wide application, even though they deal primarily with the problems of aircraft manufacturing, shipbuilding, papermaking, and other industries of the Pacific Northwest.

This is one of the best conference proceedings we have seen, the papers presented being of a practical nature, and the discussions always to the point.

Subjects included are: Induction of New Employees, Defense Personnel Problems, In and Out of Armed Forces, Stimulation and Incentives without Overpromising, Postwar Problems, Effective Delegation of Responsibility, Etc. Two papers from the conference are extracted in this issue of the *Personnel Journal*.

The book, though terribly wordy, as conference proceedings always are, is well worth buying. It may be obtained by writing to Mr F. A. Burwell, Seattle Hardware Company, Seattle, Wash.

MANAGEMENT AND MORALE

By F. J. Roethlisberger. Cambridge, Mass.: Harvard University Press, 1941, 194 pp., \$2.00

Reviewed by Benjamin E. Mallary

This book deserves a priority rating on the time of the professionally minded administrator or manager. It is so well written that it is apt to be lightly read. It is not intended to be an informative book for the superficially up-to-date. It challenges the reader's attention to the problems which arise from our attempts to work together. It "... is a study of what is, in fact, involved in human collaboration ... concerning the control of cooperative phenomena; ... that while material efficiency has been increasing for two hundred years, the human capacity for working together has in the same period continually diminished." Mr. Roethlisberger points out the methods, other than those proposed by Hitler and Mussolini, which may be used as a remedy of our social and industrial ills and which are not in conflict at any point with our democratic tradition.

In spite of the plentiful use of long words, the reader soon gains the impression that the author is as much at home in the shop as on the campus. His facility in making the transition is remarkable. When he academically states that "a good

portion of the executive's environment is verbal" he followed through with the explanation, "In discussions, meetings, and conferences the verbal atmosphere is thick." Then he proceeds to show just how a thick verbal atmosphere keeps management and labor from getting along well together. His practical solution in this case is for the executive to listen before talking.

A quotation from the last chapter of the book might best summarize its language, style and theme:

"Maintaining internal equilibrium within the social organization of the plant involves keeping the channels of communication free and clear so that orders are transmitted downward without distortion and so that relevant information regarding situations at the work level is transmitted upward without distortion to those levels at which it can be best made use of. This involves getting the bottom of the organizations to understand the economic objectives of the top; it also means getting the top of the organization to understand the feelings and sentiments of the bottom. It involves moving people about in the organization—transferring, upgrading, downgrading, promoting, demoting, placing, and selecting—in a manner that will be in accordance with the social values of the human situation and hence in a manner that will preserve morale."

It is to be hoped that the Harvard School of Business Administration and the Rockefeller Foundation will continue to produce such studies as this one and those which preceded, and that the close cooperation between these two institutions and the leading business organizations of the nation will continue.

COLLECTIVE BARGAINING CONTRACTS

Washington, D. C., Bureau of National Affairs. 1942. pp. 734. \$7.50.

Reviewed by Book Review Editor

Next to winning the war no task is more urgently needed in this country than to speed the education of both management and labor in the practices and processes of collective bargaining.

It can hardly be said that we have earnestly accepted collective bargaining in American enterprise. And I know of no other field affecting corporate growth and development where so little is known of the actual techniques as we find in the half-hearted practice of labor relations. Not only have we been reluctant to admit collective bargaining but we have obviously ignored its processes and procedures.

The book is not a case for collective bargaining, but it is a thorough professional study of the technical structure of labor contracts. It is the best source material we have seen to date for the man who really wants to know the meaning and the methods of contractual labor agreements. The section, "Techniques in Collective Bargaining," covers everything from strategy in winning maximum advantages to

ways by which agreements may be made to work satisfactorily. The viewpoint is: "Give the other fellow that which is his; take that which is yours. If today you needlessly give away your necktie, tomorrow someone will ask for your shirt." Sumner H. Slichter devotes a chapter to the economic setting of the problems confronting negotiators. Other contributors include John R. Steelman, Alexander R. Heron, Harold J. Ruttenberg, Solomon Barkin, Edwin C. Robbins, and William H. Davis.

The second section of the book, called the "Contract Clause-Finder," is the gold-mine of the work. This section shows what other employers and unions have done about the demands and counter-demands which make up the substance of collective bargaining. More than 2000 clauses are classified, sub-classified and explained to give a ready over-all view of the hundreds of problems which arise in labor relations from day to day. A third section consists of working models of complete agreements.

The best use of this book will undoubtedly be made by lawyers, and yet basically the material is what all employers should know. Collective bargaining was not intended merely to be tolerated. It should be studied, understood and used. Nothing will recommend this book more than the miserable showing that too many employers make in handling their side of the labor contract. As long as we still have free enterprise in this country and the right to bargain collectively—no employer should assign or delegate his opportunity and his duty to know what makes, and to know how to make, a good labor contract.

HOW TO CREATE JOB ENTHUSIASM

By Carl Heyel. New York: McGraw-Hill Book Company. 1942. pp. 241, \$2.00

Reviewed by Donald K. Buckley

Job enthusiasm, like so many other aspects of intelligent personnel management, is often spoken of, but is acted upon constructively far less frequently. In his newest book, Mr. Heyel has sought to analyze job enthusiasm objectively: to classify this vital phase of satisfactory employee relations into its several parts, and to indicate specific methods of accomplishing the purpose set forth in his title "How to Create Job Enthusiasm."

In undertaking the task of presenting so broad a subject within a small volume, the author has wisely restricted the scope of his field. Physical working conditions, which can play such a large part in job satisfaction, are not discussed. Patriotism, so dominant an incentive in our war production work, is mentioned but not considered at any great length, since Mr. Heyel has preferred rather to discuss job enthusiasm as it is encountered in the more normal course of work experience.

As presented in this volume, job enthusiasm is broken down into what the author terms four "manifestations of enthusiasm" which can be looked for in the attitudes of virtually any group of workers toward their jobs. These are: (1) the

"mail-must-go-through" attitude, in which the employees feel a definite sense of the significance of the job they are doing, (2) the "we" attitude, in which they instinctively identify their own interests with those of their company, (3) the attitude wherein the discipline is spontaneous, in that it works from the bottom up, and (4) the attitude shown by employees being cheerful on the job. The importance of each of these is considered in detail, and suggestions regarding methods of putting them into effective operation are included in the form of many pertinent cases.

There are a number of useful features which recommend this book to the business executive or the student of personnel management. Charts at the end of each of the principal chapters serve to summarize graphically the material presented. The cases are especially valuable, since they include not only examples of bad methods of arousing job enthusiasm—which are unfortunately all too frequent, but also of tried and proved methods—most of them applicable in any of a wide variety of organizations. In addition to case references, a number of annotated bibliographical references are included.

Mr. Hayel has successfully undertaken a practical analysis of a subject about which it is difficult to be either specific or objective. His book should definitely be considered as recommended reading.

THE FEDERAL WAGE AND HOUR LAW—QUESTIONS AND ANSWERS

By Arthur W. Nevins. Deep River, Connecticut. National Foremen's Institute, Inc. 1941. 58 pp. \$1.50

Reviewed by Book Review Editor

This fifty-eight page pamphlet is bound in smart red fabrikoid covers and dressed up to its price-class. It is handy size manual for department heads and supervisors on the question-and-answer interpretation of the Fair Labor Standards Act. It is not exhaustive on the subject by any means, but it is a good straight-forward explanation of the wage and hour law and what foremen and supervisors should know about it. The simple, easy reading style makes the material very usable in the shop and plant where it is sometimes difficult to get the men to read a volume.

The little book's value could have been increased considerably if the publishers had only added a few more pages and included the text of the Act itself—if for no other reason than for reference. Reading time, forty minutes.

WORK BEGUN

Lawrence K. Hall. New York: Association Press, 1940. pp. 154. \$2.00

Reviewed by Forrest H. Kirkpatrick

It is a matter of common knowledge that many men entering the Y.M.C.A. secretaryship have had an unsatisfactory induction experience and so the author of this little book reports a study concerned primarily with the impressions made

upon beginning secretaries by their early experiences, in terms of their feelings of satisfaction and dissatisfaction, their sense of personal and professional status or lack of it, their sense of success or failure in their work. The chapters are: I. Factors and Difficulties in Occupational Adjustment; II. Exploring Experiences; III. 444 Men Begin Work; IV. Achieving Satisfaction and Success; V. Where The Path Divides; IV. Summary and Implications.

The study made by Hall involves 444 college graduates who entered the Y.M.C.A. secretaryship in 1927, 1928, 1929, 1930, and 1931, shortly after graduation from college. Data on these entrants were obtained from records in the National Council Office, from questionnaires filled out by the entrants, and from ratings made by observers and supervisors. The word *adjustment* as used by Hall does not have particular psychological implication.

The most marked differences between the group of well-adjusted secretaries and the poorly adjusted secretaries were found in their staff relationships, especially with the general secretary; in the amount and quality of their supervision; in the general atmosphere in which the work went on. Differences appeared between the two groups in terms of their belief in the association as an agency interpreting the highest values. Other differences were indicated in their adjustment to community life and in their sense of personal growth and status. There are, of course, great overlappings and there is certainly no clean cut differentiation between what is concomitant with good adjustment or with bad adjustment. There does seem to be a reliable tendency toward a "pattern" among the experiences of new secretaries. Hall offers some suggestions for the Y.M.C.A. personnel procedures.

Within the limits of reliability mentioned by the author the book indicates what college men entering the secretaryship of the Y.M.C.A. may expect to find. They can know with some assurance what disappointments and what satisfactions await them. There is, of course, nothing peculiar about this sort of a situation, hence the book can not be classed as significant, illuminating, or particularly helpful.

This study very properly takes its place among many efforts to understand and improve the process of helping men make a satisfactory start in their life work. It is probably bound more than the author indicates, however, to the fact that human nature, biologically and psychologically, seems to give us all a preference for doing work our own way, and a resentment for any attempt to tell us how to perform.

Conservation of Man-Power, Materials and Money

Personnel managers to-day are using a new and profitable trend in their health service work.

They found it worth-while to know how "sick" a worker is; and now they find it even more beneficial to know also how "well" a worker is.

They used successfully modern medical devices to prevent disease and accidents; and now they use also modern nutritional science devices to study and to improve the health of the worker.

Nutrition is not the only factor that affects health and morale, but it is one of the most important and most neglected factors.

The correction of the nutritional faults of industrial workers is measurably translatable into greater working efficiency, fewer absences from work, a decrease in the number of accidents and better morale. Production obviously benefits as a result.

The extent of faulty nutrition among industrial workers is so amazingly large that the profitable return for its correction is usually many times more substantial than that resulting from the scientific prevention of accidents.

How Personnel Managers Proceed

Personnel managers do not rush into any offered remedy for correcting nutritional unfitness until they first know the nature of the problem.

Top-management rightly asks that the problem be approached with the same studied care used in the methods of scientific accident prevention.

Nutritional fitness studies call for

1. arousing and maintaining interest in nutritional fitness;
2. fact finding;
3. suggesting corrective measures according to the facts.

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